TEST REQUEST FORM

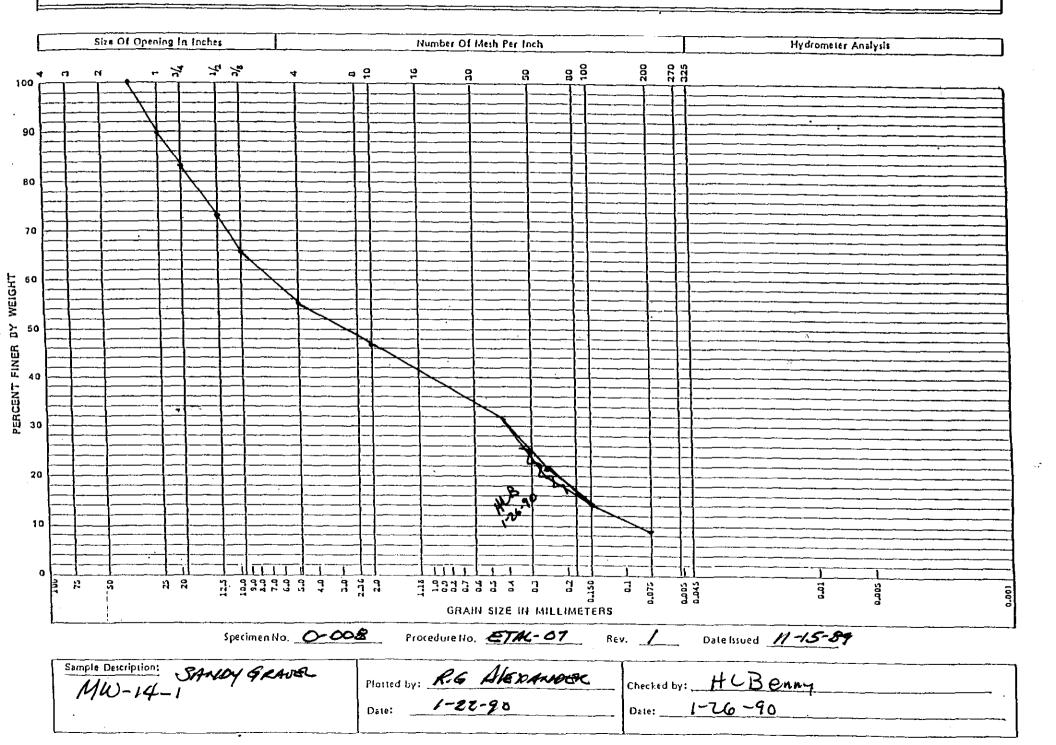
| | No of | |
|----------------|-------------------|---|
| Test Requested | No. of Samples | Test Lab Information (Instruction Used) |
| SIEVE ANALYSIS | | ETAL-07 |
| HYDROLIETER | | ETAL-07 (IF RED) |
| MOISTURE | | ETAL- 14 |
| NA | MA | NIA |



| | | | | | | · | |
|--------------------|--|---------------------------|--------------------------------|------------------|----------------------------|----------------------|----------|
| | | | SIEVE ANA | LYSIS DAT | | | |
| | | e ID <u></u> 0- | | | Page | | |
| | Te | sted By k | 2G ALEXA | y der] | Date 1-22- | 90 | |
| | Pr | ocedure_ | 27AL-07 Re | <u> </u> | Date Issued_ | 11-15-89 | |
| | | Balance | NT ITEM CA | 3304 | 3-25 | -90 | |
| • | | Thermome | | W/A | 26 0/A | | |
| | | | | | | | |
| Samp1 | le Desc | ription | Shudy Gra | NSL | — Sieve Ti | me <u>/O</u> (1 | min) |
| ! | reduced | i by | aplitting | | : 🗆 atockı | oile | |
| BEF | (B) ORE TI | est wt.√ | AFTER TE | ST WT. | $\frac{B-A}{B}X \ 100 = .$ | MA % LOSS | } |
| Sieve ID Number | Sleve Slze | Sample Weight | Cumulative Wt. Retained (g) | % Retained | Cumulative 7 Retained | Cumulative ? Pass | % Pass |
| N/A | 2 | 3814.37 | Ø | Ø | 97 | 100 | 100 |
| | 1/2 | | Ø | Ø | Ø | 100 | 100 |
| | | | 386.90 | 10,1 | 10.1 | 89.9 | 89.9 |
| | 3/4 | | 637-64 | 16.7 | 16.7 | 83.3 | 83.3 |
| | 1/2 | | 1022.42 | 268 | 26.8 | 73.2 | 73.2 |
| | 318 | | 1304.47 | 34.2 | 34.2 | 65.8 | 65.8 |
| | #4 | ₩ ₩ | 1724.70 | 45.2 | 45.2 | 54.8 | 54.8 |
| | #10. | 3814,37 | 2037.36 | 53.4 | 53.4 | 46.4 | 466 |
| | #40 | 120,55 | _ | 34.1 | 34.1 | 65.9 | 30.7 |
| | #60 | | 63.87 | 53.0 | 53.0 | 47.0 | 21.9 |
| | #160 | | 83.74 | 69.5 | 69.5 | 1 to 30.5 | 14.2 |
| 4 | #Z00 | ₩ | 98.21 | 81.5 | 81.5 | 18.5 | 8.6 |
| • | Finess l | Males (FM | () 4/A- (| | 36-83, Section | | |
| MATERL | als fin | VER THAN | NO. 200 SIE | VE BY WASE | | | |
| | | | ssing a 200 Siev | | Remar | | a Dially |
| - | D=Original Dry Weight of Sample 420.55g WASH FINE GRADING FIELD SAMPLE | | | | | | |
| E=Dry Wel | | Sample Afte (D-E)/D> X | r Washing/Sieve | : <u>98.21 g</u> | SMA | 4. | |
| | | | | | TV DECORES | | - T |
| I | | | URATELY AND AINED AND U | | | | 5 1 |
| | | By HC | | | | 1-26-90 | |
| | | | | | | -6400-204(2-87) | |

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GRAIN SIZE ANALYSIS PLOT



SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL -14 REV. NO. 9

THERMOMETER NO. <u>0006</u> CALIBRATION DUE DATE <u>2-6-90</u>

| SAMPLE NO. | WET WT. + CAN | DRY WT. + CAN | CAN WT. | WET WT. SOIL | DRY WT. SOIL | z water |
|------------|---------------|---------------|--------------|--------------|--------------|---------|
| 0-008 | 4815.50 | 4643.95 | | | 38/4.31 | 4,50 |
| | | | | 270277 | 20/4/21 | / |
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ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR:

R.G ALEXANDER

DATE 1-22-90

| W | Westingh Honford | ouse Company |
|---|---------------------|-----------------|
|---|---------------------|-----------------|

CHAIN OF CUSTODY

| | 51174111 61 66 | 3.051 | |
|--|--|------------------|--|
| Company Contact: <u>Jon</u> | Lindberg | Telephone: | 6-5005 |
| Sample Collected by: K.M. Sample Locations: Horn | Singleton | Date: <u></u> | 39 Time: |
| Sample Locations: <u>Horn</u> | Rapids Lawn F | 11, mw-13 | |
| Ice Chest No.: | NA | Field Logbook | Page No.: |
| Remarks: | | | |
| | | | |
| Method of Shipment: True | chilar to 21 | 01111 | |
| MW-13=1, 76-86, | Sample Identii | ication | ó. |
| | | <i>[</i> | |
| (Grain size, & moist | une test) | | |
| Mydrometer | | | ······································ |
| MW 13-2, 108'-115' | ~ 7160 lastic ban | | |
| (Grain size, & mojst | luo) | • | |
| Hydroneles | | | |
| | ······································ | | |
| REMARK SAMPLE NO. 1 | As DER THERMAN | CONSTRUCTION LOS | th J. Lindbers |
| on 1-15-50 R.C. Ala | | | |
| R.G Alex | ANDER | | |
| | | | |
| | ······································ | | |
| CHAIN OF POSSESSION | | | |
| Relinquished by: | Becelved by: | | Date/Time: |
| KM Single for Tille | El R.G Sleur | MAL | 1-9-90 0630 |
| Relinquished by: | Received by: R | | Date/Time: |
| Relinquished by: | Received by: | | Date/Time: |
| Relinquished by: | Received by: | | Date/Time: |
| | - | | |

| W | Westingh Hanford | ouse Company |
|---|---------------------|-----------------|
|---|---------------------|-----------------|

SAMPLE ANALYSIS REQUEST

| PART I: FIELI |) SECTION | | | |
|------------------|---|----------------|--------------------------|-------------------|
| Collector:/ | s.M. Singleton o | ate Sample | od: <u>/2-29-89</u> Time | : <u>MA</u> hours |
| Company Co | ntact Jan Linds | berg | Telephone () | -5005 |
| SAMPLE NUMBER | NUMBER & TYPE OF SAMPLE CONTAINERS | TYPE OF SAMPLE | ANALYSIS REQU | ESTED |
| nw/3-1 | I plante bug | snl | Morstue / Sieve | / Hydoreti |
| Muis-Z | I planter bag | Soil | Moisture/Sieve/A | hydrometer |
| | | | | |
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| | | | | |
| Field Inform | ation ** | | | |
| · · | | | | |
| Speciai Hand | dling and/or Storage | | | |
| | BORATORY SECTION | | | |
| | | | e[| Date |
| Analysis Rec | ulred | | | |
| | Whether Sample is Soil, k of Page for Additional | | | Location. |

| RADIATION RELEASE | RADIATION RELEASE |
|--|--|
| Bldg. How Raports Date 12-29-89 | Bldg. Hary Rapiele Date 12-29-8 |
| Released By | |
| Operational Health Physics | Released By Operational Health Physics |
| Remarks | Remarks |
| | MW 13-2 |
| 54-3000-022 (09/88) | 54-3000-022 (09 |
| RADIATION RELEASE | RADIATION RELEASE |
| 11-0 | 14-4 |
| Bldg. 1 2-90 | Bldg. MW-13- 5 Date 1-7-90 |
| Released By M (geland | Released By W/Capelanel Operational Health Physics |
| Operational Health Physics Remarks | Remarks |
| | 1 Sample |
| | 54-3000-022 (09/ |
| | |
| RADIATION RELEASE | PADIATION DELEACE |
| Bidg. MW-13-5 Date 1-3-98 | RADIATION RELEASE |
| | Bldg. MW-X- Date 1-3-90 |
| Released By Operational Health Physics | Released By |
| Remarks | Remarks MU - 14-15 |
| | Remarks / 100 / T |
| 54-3000-022 (09/88) | 54-3000-022 (09/8 |
| | en e |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. WM - 14-7 Date 1-4-80 | 1 1 1 1 1 1 1 1 90 |
| Released By | Bldg. (1)M-14-) Date /- 4-0 |
| Operational Health Physics | Released By Oberational Health Physics |
| Remarks | |
| 54-3000-022 (09/88) | Remarks |
| 34 3555 512 (55,60) | 54-3000-022 (09 |

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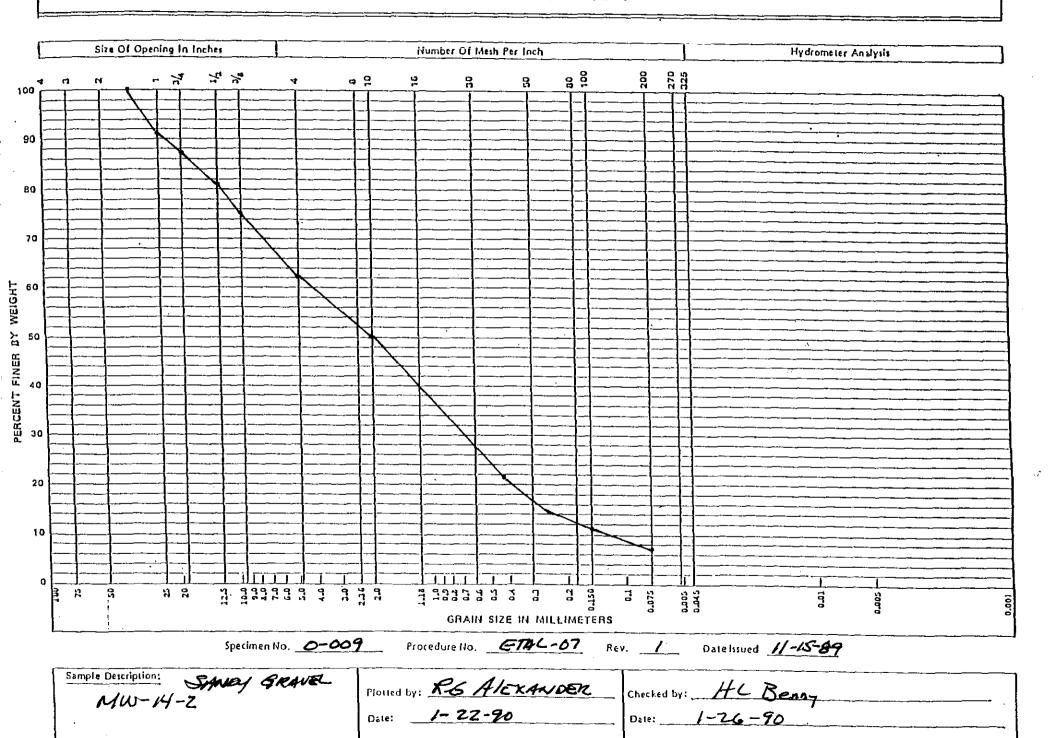
TEST REQUEST FORM

| Requested By: Org. | 80232 | Person J. LINOBEKE Date 1-22-90 |
|--------------------|-------------------|--|
| Test Requested | No. of Samples | Test Lab Information (Instruction Used) |
| SIEVE ANALYSIA | | ELV-01 |
| Hypromere | <u> </u> | ETAL- 07 (IF RED.) |
| MOISTURE | | ETAL-14 |
| NA | NA | N/A |
| | 2/4 | |

| | | | SIEVE ANAI | LYSIS DAT | A SHEET | | |
|--------------------|------------------|--------------------------------|--------------------------------|--|---|--------------|--------|
| | Sampl | le ID <u>0-</u> 0 | 009 | | Page/ | of <u>/</u> | |
| | Te | sted By <u></u> | P.G AIEXAN | der 1 | Date 1-22; | 90 | |
| | Pr | ocedure_ | ETAL-07 Re | | | 1-15-90 | |
| | | EQUIPME Balance Thermome | | Libration 1 3804 0006 N/A | 0. DATE I 3-25- 2-6- | 90 | |
| Samp | le Desc | eription | SANDY GR | AVEL. | — Sieve Ti | me_15_(1 | min) |
| | reduced | i by | splitting [| □ quartering | | • | |
| BEF | ORE T | est wt. | AFTER TE | ST WT. NA | $\Delta = \cot x \frac{\Lambda - \alpha}{\Omega}$ | VA % LOSS | |
| Sleve ID Number | Sleve Slze | Sample Weight | Cumulative Wt. Retained (g) | % Retained | Cumulative % | Cumulative 7 | % Pass |
| N/A | 2 | 3549.68 | Ø | ø | Ø | 100 | 100 |
| | 11/2 | 1 | Ø | Ø | ø | 100 | 100 |
| | 1 | | 3/6.32 | 8.9 | 8.9 | 91.1 | 91.1 |
| | 3/4 | | 471.72 | 13.3 | /3.3 | 86.7 | 867 |
| | 1/2 | | 672.00 | 18.9 | 18.9 | 81.1 | 81-1 |
| | 3/8 | | 895.20 | 25.2 | 25.2 | 74.8 | 74.8 |
| | #4 | 4 | 1834.70 | 87.6 | 37-4 | 6z,4 | 62.4 |
| | ¥10. | 3549.68 | 1775.96 | 50.0 | 50.0 | 50.0 | 50.0 |
| | #40 | 145.84 | 45.94 | 56-9 | 56.9 | 43.1 | 21-6 |
| | #60 | | 82.48 | 71-2 | 71.2 | 28.8 | 14,4 |
| | #100 | | 91.12 | 78.7 | 78.7 | عار3 | 10.7 |
| 4 | # 200 | 7 | 98.97 | 85.4 | 85.4 | 14.6 | 7.3 |
| | Finess A | Modules (FM |) <u>N/A</u> (| See ASTM C 1: | 36-83, Section | 8.2) | |
| MATERL | als fir | NER THAN | NO. 200 SIE | VE BY WASE | | | |
| | | | sing a 200 Siev | | Remark | cs GRAONE | 5 |
| _ | - | eight of Sam | <u>.</u> | / <u>/5.84 r</u> 98 <i>9</i> 2 | SMAC | L FIEW | |
| E-DLA MEI | _ | sample After (D-E)/D> X | r Washing/Sieve 100 | ************************************** | SAMP | LE | |
| AL | | | URATELY AND | COMPLETE | LY RECORDED | THE TES | т |
| OP | ERATO | R WAS TRA | AINED AND US | | ATED INSTRU | MENTS | 7 |
| Ch | ecked | By HL | Denny | | Date_ | 1-26-90 | |

A-6400-204(2-67)

GRAIN SIZE ANALYSIS PLOT



SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-14 REV. NO. Ø

THERMOMETER NO. OOG CALIBRATION DUE DATE 2-4-90

| 0-009 4504.94 4406.24 186.86 3648.38 3649.68 2.78 | Sample no. | WET WT. + CAN | DRY WT. + CAN | CAN WT. | WET WT. SOIL | DRY WT. SOIL | z water |
|---|------------|---------------|---------------|----------|--------------|--------------|---------------------------------------|
| | 0-009 | 4504.94 | 4406.24 | 156.56 | 3648,38 | 3549,68 | 2.78 |
| | | | | | | | |
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ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

R.G ALEXANDER TEST OPERATOR:

DATE /- 22-90

| Westinghous | se |
|-------------|--------|
| Hanford Co | Impany |

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CHAIN OF CUSTODY

| | CHAIN OF C | .031001 | |
|--|----------------------|---------------------------------------|--|
| Company Contact: | Lind herg | Telephone: | 6-5005 |
| Sample Collected by: <u>K.C.</u> Sample Locations: <u>Hocr</u> | M. Singleton | Date: <u>_/2-29</u> | -89 Time: <u>M</u> |
| Sample Locations: Horr | Rapids Laun | Fill, MW-13 | |
| ice Chest No.: | | | ok Page No.: |
| Remarks: | | | |
| | | | |
| Method of Shipment: | uck/CAR to & | 161M | |
| 1.L putsa° | Sample Iden | tification | ā |
| Method of Shipment: Tra | , ~ 7 16 plante & | hag | |
| (Contrarios dans | tura tent | | |
| wys Mydromete | <u> </u> | · · · · · · · · · · · · · · · · · · · | ······································ |
| MW13-2, 108'-115 | 1 7 7 16 plastic bac | 7 | |
| (Grain size, & moi) | strue) | | |
| Hydrometer | <u> </u> | | |
| | | | |
| REMARK SAMPLE NO. | AS PER TELEPHO | UE CENVESATIONS L | OITH J. LINOBERG |
| CU 1-15-50 R.G. AL | 1-15-40 EXAMPEL | · · · · · · · · · · · · · · · · · · · | |
| | | | |
| CHAIN OF POSSESSION | | | |
| Outline in taking dichara | Described Lea | | D 4 /T |
| Relinquished by: | Received by: | 400 | Date/Time: /-9-90 0630 |
| Relinquished by: | Received by: A | E Alyan | Date/Time: |
| Relinquished by: | Received by: | | Date/Time: |
| Relinquished by: | Received by: | | Date/Time: |
| | | | |

| W | Westingh Hanford | ouse Company |
|---|---------------------|-----------------|
| | Hanford | Compan |

SAMPLE ANALYSIS REQUEST

| | LD SECTION | | |
|------------------|--|----------------|--|
| Collector: _ | K.M. Singleton D | ate Sample | od: 12-29-89 Time: <u>NA</u> hours |
| Company C | Contact <u>Jou Linds</u> | berg | Telephone () 6-5005 |
| SAMPLE NUMBER | NUMBER & TYPE OF SAMPLE CONTAINERS | TYPE OF SAMPLE | ANALYSIS REQUESTED |
| MW/3-1 | I planter buy | sal | Morstue / Sieve / Hydronotic |
| May3-Z | I plantic brig | Soil | Moisture / Sieve / Hydrometer |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Field Inform | mation ** | | |
| | | | |
| Special Ha | ndling and/or Storage | | |
| | LABORATORY SECTION | | |
| | y | | B Date |
| • Indicate | Whether Sample is Soil, | Sludge, Wa | iter. Etc. n Relative to Sample Location. |

| RADIATION RELEASE | RADIATION RELEASE |
|---|--|
| Bldg. How Rapods Date 12-29-59 | Bldg. Har Rapida Date 12-29-89 |
| Released By | |
| Operational Health Physics | Released By Operational Health Physics |
| Remarks | Remarks 14-Z |
| MW-14-1 | 14(1) 12-2 |
| 54-3000-022 (09/88) | 54-3000-022 (09/88 |
| DADIATION DELEACE | RADIATION RELEASE |
| RADIATION RELEASE | 14-4 |
| Bldg. MW-78-90 Date 1+ 2-90 | Bldg. MU-13- 4 pate 1-790 |
| de la | Released By MCapelane |
| Released By Operational Health Physics | Operational Health Physics |
| Remarks MW-14-3 | Remarks |
| A C A C | - 1 Sample |
| | 54-3000-022 (09/88) |
| 54-3000-022 (09/88) | 4 |
| | The second secon |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. MW-13-5 Date 1-3-98 | III KAV |
| Bidg. Date | Bidg. MW-X- 1 Date 1-3-90 |
| Released By | Released By |
| Operational Health Physics | Operational Health Physics |
| Remarks | Remarks MW-14-15 |
| | |
| 54-3000-022 (09/88) | 54-3000-022 (09/88) |
| Lander Main (Maring agreement and the first of the first | 34-3000-022 (09/88) |
| RADIATION RELEASE | |
| 1 1 9 | RADIATION RELEASE |
| ldg. WM - 14 Date 1-4-10 | 13 |
| eleased By MAN | Bldg, 4/M-14-8 Date |
| Operational Hourth Physics | Released By |
| emarks | Operational Health Physics |
| | Remarks |
| · | |

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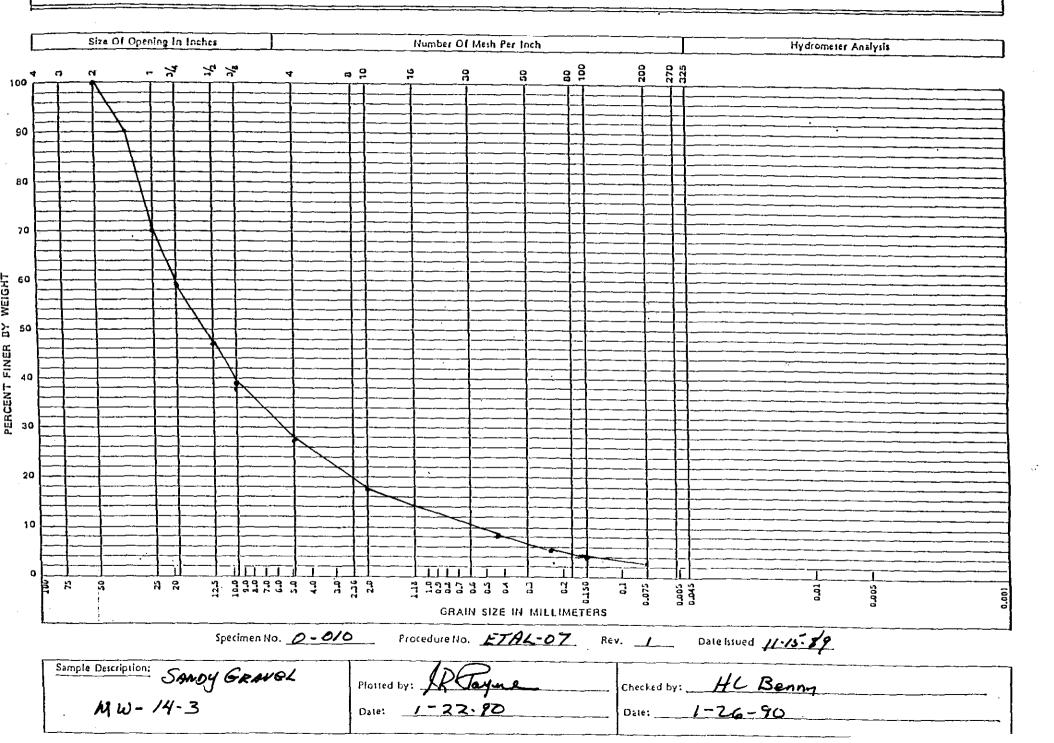
6

TEST REQUEST FORM

| Sample/Specimen | No. 10-0/0 | Cost Code/Work Order No. ED 332 |
|----------------------|---------------------------------------|--|
| Requested By: | 0rg. 80232 | Person JLivoscry Date 1.22.90 |
| Test Requested | No. of Samples | Test Lab Information (Instruction Used) |
| Siève Auntris | | ETAL - 07 |
| Hyprometer | | ETAL. 07 (IF REQ) |
| MOISTHAR | | ETAL - 14 |
| N/A | NIA | N/A |
| Remarks <u>F/e/A</u> | | Received By: RG ALEXANDER Date 1-9-90 |
| MW - · 14-3 | · · · · · · · · · · · · · · · · · · · | Approved By: RG ALCRANDER Date 1-22.92 |

| | | | SIEVE ANAI | YSIS DAT | | | |
|---|---|--------------------------|--------------------------------|--------------|----------------------|--------------|--------|
| | Sampl | e ID_ <i>O</i> | 0/0 | | Page | of/_ | |
| • | Tested By R.G. Akexandek. Date 1-22-80 | | | | | | |
| 1, | Pr | ocedure £ | <i>TAL-</i> 07 Re | v <u> </u> | Date Issued ∠ | 1.15-50 | |
| | | EQUIPME Balance | NT ITEM CAL | | 10. DATE I | | |
| | | Thermome | ter | | | | |
| 1 | | N// | / | N/A | | | |
| Samp | le Desc | ription_ | SANDY GRA | veL | — Sieve Tir | me/O(r | nin) |
| | | | plitting [| | | | |
| BEF | /n\ | | AFTER TE: | (A) | | | |
| Sieve ID Number | Sieve Size | Sample Weight | Cumulative Wt. Retained (g) | % Retained | Cumulative % | Cumulative 2 | % Pass |
| N/A | 2 | 3463.50 | ø | ø | 0 | 100 | 114 |
| | 11/2 | <i>D</i> 7.6 7.30 | 338.51 | 132-128 9.8 | 80 mg 9.8 | 90.2 | 90.2 |
| | 1 | | 1031.61 | 29.8 | 29.8 | 70.2 | 70.2 |
| | 3/4 | | 1439.04 | 41.5 | 41.5 | 58.5 | 58.8 |
| | 1/2 | | 1826.93 | 52.7 | 52.7 | 47.3 | 47.3 |
| | 3/8 | | 2127.51 | 61.4 | 61.4 | 38.6 | 386 |
| | #4 | * | 2513.94 | 72.6 | 73.6 | 274 | 27.4 |
| | #10. | 3463.50 | 2872.31 | 82.9 | 83.9 | 17.1 | 17.1 |
| | # 40 | 107.81 | 55.58 | 51.5 | 51.6 | 48.4 | 8.3 |
| | # 60 | | 71.65 | 66.5 | 66.5 | 33.5 | 5.7 |
| | #100 | | 82.75 | 76.8 | 76.8 | 23.2 | 4.0 |
| * | 4200 | * | 91.92 | 85.3 | 85.3 | 14.7 | 2.5 |
| | Finess N | Modules (FM | | See ASTM C 1 | 36-83, Section | | |
| MATERI | ALS FIN | VER THAN | NO. 200 SIEV | VE BY WASE | | | |
| C=Percentage of Material Passing a 200 Sieve 42 % Remarks | | | | | | | |
| | D=Original Dry Weight of Sample Mash GRADING Small Field Small Field Small Field Small Field | | | | | | |
| E=Dry Weight of Sample After Washing/Sleve 91.92g | | | | | | | |
| AT | C = <(D-E)/D> X 100 ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST | | | | | | |
| OF | ERATO | R WAS TR | AINED AND US | | ATED INSTRU | MENTS | |
| | Checked By <u>HCBenny</u> Date <u>1-26-90</u> | | | | | | |

GRAIN SIZE ANALYSIS PLOT



SOIL MOISTURE DATA SHEET

PROCEDURE NO. FTAL-14 REV. NO. _____

THERMOMETER NO. <u>0006</u> CALIBRATION DUE DATE <u>2-6-90</u>

| SAMPLE NO. | WET WT L CAN | DRY WT. + CAN | CAN WT | Militar Main COAL | DDV was corr | 27 W. C. |
|-------------|--------------|--|--|-------------------|--------------|---------------|
| | | | | | | Z WATE |
| 0-010 | 4130.16 | 4047.50 | 384.00 | 3546.16 | 3463.50 | 7.39 |
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ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: TR. PAYNE

DATE 1-22-90

S

CHAIN OF CUSTODY

| Company Contact: JWLindberg | | Telephone | 6-5005 |
|---|--------------|----------------------|------------------------|
| Sample Collected by: RandMiller | (Golder) | Date: Jan 2-4, 10 | 190 Time: NA |
| Sample Locations: Temporary Well | Number M | W-14 | |
| Ice Chest No.: NA | | | WHC-N-306-3 Page 33-34 |
| Remarks: | | | : |
| | | | |
| Bill of Lading No.: <u>NA</u> | Of | Site Property No.: N | <u> </u> |
| Method of Shipment: Hand Carry | \ | | |
| shipped to: Jerry Alexander | (WHC) 2 | 01-m physical to | esting laboratory |
| MW-14-3 | Sample Ident | | ر. ا |
| MW-14-4 above 7 | | | |
| MW-14-5 below P | | | |
| MW-14-6 | | | |
| MW-14-7 | | | |
| MW-14 - 8 | | | |
| MW-14-9 | | | |
| MW-14-10 | | | |
| MW-14-11 | | | |
| | | | |
| | · | | |
| CHAIN OF POSSESSION | | | |
| Relinguished by: | Received by: | 0 1 | Date/Time: |
| fand it Will (GAI) | Julindberg | XV Linfleon | 1/6/90 1015 |
| Relinquished by: Julindhera All Peullera | Received by: | EXAMPLE | Date/Time: |
| Relinquished by: | Received by: | Costofono | Date/Time: |
| Relinquished by: | Received by: | | Date/Time: |
| | | | FVR\071889-B |

SAMPLING ANALYSIS REQUEST

| Part I: Fiel | d Section | | | | |
|--------------------------------|--|-----------------------------------|---------------------|-------------------|----------|
| Collector Ro | indMiller Gold | er) Date Sa | impled Jan 2 | -4,1990Time NA | hours |
| Affiliation o | f Sampler Gold | er | | | |
| Address N/A | umper street | | | | |
| | umper street | : C1 | ty | state | zip |
| Telephone (50% | 1) 376-5005 | Company Cont | act JWL | indberg (Field Te | eam Lead |
| LABORATORY SAMPLE NUMBER | COLLECTOR'S SAMPLE NO. | TYPE OF SAMPLE* | | ELD INFORMATION** | |
| MW-14-3 | MW-14-3 | Soil | Plastic | bag containe | r |
| AW-14-4 | MW-14-4 | Soil | • | bag contained | |
| | - | | | <u> </u> | |
| Analysis Reque | sted <u>Particle</u> | Size An | • | d Moistave C | ntent |
| | | <u> </u> | | | |
| Special Handli: | ng and/or Storag | e NA | | | |
| | | | | ` | i |
| PART II: LABO | RATORY SECTION** | | | | , |
| Received by | | Tit | le | Date | |
| Analysis Requir | | 10.11 | | | |
| ' Indicate whet | ther sample is so dage for addition | oil, sludge, e nal information | tc. n relative 1 | to sample locatio | on. |

Figure 9-19. Example of hazardous waste sample analysis sheet.

NIME - 70

Revision 0 Date September 1986

| RADIATION RELEASE | RADIATION RELEASE |
|--|--|
| Bldg. How Rapords Date 12-29-89 | Bldg. Hory Rapiole Date 12-29-89 |
| Released By Operational Health Physics | Released By JU |
| Operational Health Physics | Operational Health Physics |
| Remarks | Remarks |
| MW-14-1 | MW 13-2 |
| 54-3000-022 (09/88) | 54-3000-022 (09/88) |
| en e | |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. MW-75-3 Date 1 2-90 | Bldg. MW-13- 03 9ate 1-2-90 |
| Released By M Capelano | Released By W/Capelanel |
| Operational Health Physics | Operational Health Physics |
| Remarks NV - 14-3 | Remarks |
| / Sample | - 1 Sample |
| 54-3000-022 (09/88) | 54-3000-022 (09/88) |
| · | |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. MW-13-5 Date 1-3-98 | Bldg. MW-X- Date 1-3-90 |
| Released By | |
| Operational Health Physics | Released By Operational Health Physics |
| Remarks | Remarks MW-14-15 |
| | |
| 54-3000-022 (09/88) | 54-3000-022 (09/88) |
| | |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. WM-14- Date 1-4-80 | 19 109 |
| Released By | Bidg, 4/M-/4 Date |
| Operational Hourth Physics | Released By Operational Jesus Physics |
| Remarks | - Operation of the second of t |
| 54-3000-022 (09/88) | Remarks |
| 54-3000-022 (03/88) | 54-3000-022 (09/88) |

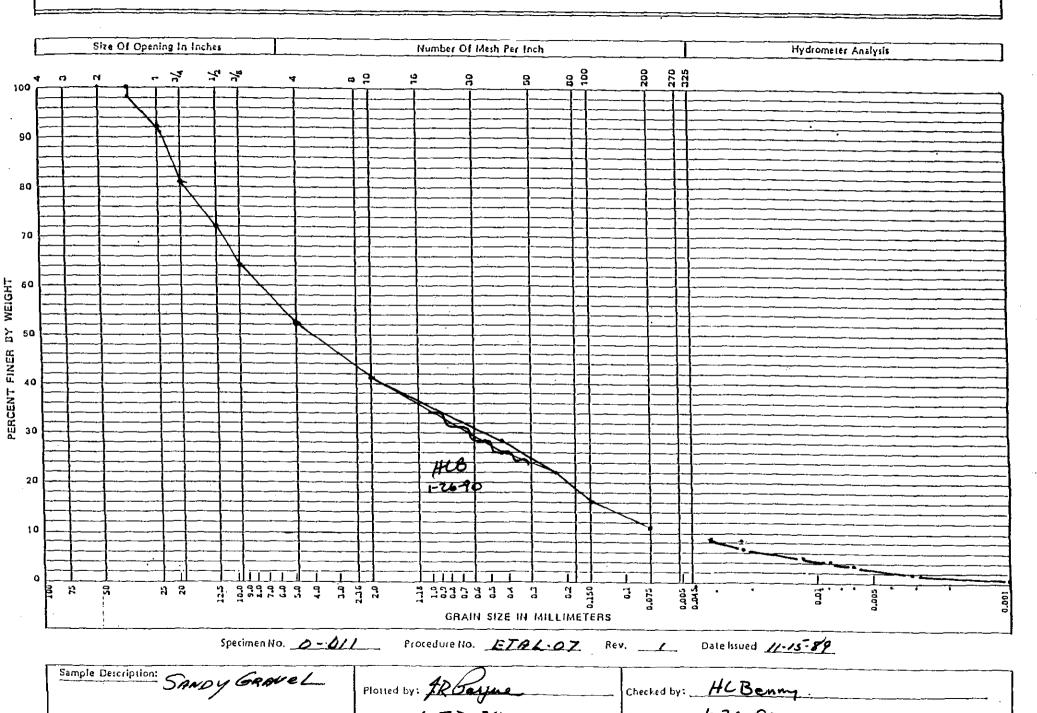
TEST REQUEST FORM

| | | Person J. Linober Date 1.22-90 |
|------------------|-------------------|--|
| requested by. Or | y. <u>20 70 C</u> | 1612011 0. XINOSOFT Date 7.22.40 |
| Test Requested | No. of Samples | Test Lab Information (Instruction Used) |
| Sieve ANALYSIS | | ETAL.07 |
| Hy Desmeter | | ETAL-07 (IF Rea) |
| moisture | | ETAL-14 |
| N/A | NIA | N/A |
| | • | |
| Domanika | r. Canalla | Pagained Due DG A/ayay 040 Data 4 d. an |
| Mu3 - 14 - 4 | | Received By: RG. ALEXANDER Date 1.22-92 Approved By: RG. Blexander Date 1.22-92 |

| | | | | | SIEVE ANA | LYSIS DAT | A S | HEET | | |
|--|---|---------------|----------|----------------|--------------------------------|--------------------------|----------|------------------|----------------------|---------------------------------|
| | | Sampl | e II | 0- | 0// | | Pa | ge | of | |
| | | Te | sted | By_ / | CG. ALEXAND | er : | Date. | 1.22-5 | 0 | 4, |
| Procedure <u>ETAL-07</u> Rev / Date Issued //-8-90 | | | | | | | | ļ | | |
| EQUIPMENT ITEM CALIBRATION NO. DATE DUE | | | | | | | | | | |
| İ | Balance 2304 3.25.90 | | | | | | | | | |
| | Thermometer 0006 2-6-90 | | | | | | | | | |
| | | | | | | | | | | |
| S | ampl | e Desc | ript | tion | SANDY GRA | reL | | Sieve Tir | ne /d (: | min) |
| | | | bу | X . | splitting (| | <u> </u> | □ stockp | lle | |
| | BEF | (B) ORE TE | EST | WT. N Z | AFTER TE | (A) ST WT. <i>A/A</i> | B-A | X 100 = 4 | '∕ ∕⁄⁄ % LOSS | |
| | ve ID nber | Sieve Size | 1 | mple lght | Cumulative Wt. Retained (g) | % Retained | j | nulative % | Cumulative ? | % Pagg |
| N/ | 120 | ス | <u> </u> | 58/24 | | ø | | Ø | 100 | 100 |
| 7 | | 1/2 | | <u>3.0:47</u> | 0 | 0 | | Ø | 100 | 100 |
| | | 1 | | | 214.27 | 7.8 | | 7.8 | 92.2 | · |
| | | 3/4 | | | 524.36 | | | 9.0 | 81.0 | 81.0 |
| | | 1/2 | | | 767.62 | 27.8 | ĺ | 17.8 | | |
| | | 3/8 | | | 999.32 | 36.2 | | 36·Z | 72.Z 63.8 | 72.2 |
| | ļ | #4 | 7 | 7 | 1321.91 | 47.9 | | 47.9 | 52.1 | 52.1 |
| | | #10 | 27 | 58.21 | | 58.7 | | 58.7 | 41.3 | 41.3 |
| | | #40 | | 0.52 | 40.35 | 30.9 | | 30.9 | 69.1 | 28.5 |
| | | # 60 | | | 59.43 | 45.5 | | 45.5 | 54.5 | 22.5 |
| | | # 100 | | | 77.50 | 59.4 | | 57.4 | 40.6 | 16.8 |
| 4 | | # 200 | 7 | | 94.01 | 72.0 | | 72.0 | 28.0 | 11.6 |
| | | Finess M | lodul | les (FM | | See ASTM C 1 | 36-83 | ·——— | ···· | |
| MA. | reri <i>a</i> | LS FIN | ER | MAHT | NO. 200 SIE | VE BY WASH | ING | *. | | |
| C=Pe | ercent | age of M | later | ial Pas | sing a 200 Sleve | 28.0% | | Remark | | |
| D=Or | lginal | Dry We | lght | of Sam | ple | 13054 | | Small Fi | PADING | · · · · · · · · · · · · · · · · |
| E=Dr | y Wei | | | | · Washing/Sleve | 94.01 g | } | 2000 PC | ELD | |
| | | C = <(| D-E | א <ם/(| 100 | | | | | |
| | ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST | | | | | | | | | |
| | OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS Checked By HC Benny Date 1-26-90 | | | | | | | | | |

A-6400-204(2-87)

GRAIN SIZE ANALYSIS PLOT



· MW- 14.4

Date: 1-22-70 | Date: 1-26-90

SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL 14 REV. NO. 0

THERMOMETER NO. 0006 CALIBRATION DUE DATE 2-6-90

| SAMPLE NO. | WET WT. + CAN | DRY WT. + CAN | CAN WT. | WET WT. SOIL | DRY WT. SOIL | % WATE |
|------------|---------------|---------------|---------------------------------------|--------------|--------------|--------------|
| 0-011 | 3632.16 | 3594.00 | 835.76 | 279640 | 2758.24 | 1.38 |
| | | | | | | / |
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| | | | | | | |

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR:

DATE 1-22-90

HYDROMETER ANALYSIS DATA SHEET

| | | -011 | | | e_/_of_/ | _ | |
|--------------------------|--------------------|--------------------|--------------------|--------------------------------------|---------------------|---------------------------------------|----------------------|
| | | | | Date 3-20 | | | |
| | | Procedure ET4C | -07 Rev / | Date Issued <u>//-15-89</u> | | | |
| | 1 | EOUIPM | ENTITEM | | IBRATION IE DATE | 1 | |
| | | Hydrometer | •• | 1000 2 | | | |
| | 1 | Balance | | 3304 3 | | | |
| | | <u>Thermometer</u> | /Thermocouple | 0002 Z | - 9- 9/ | | |
| Specifi | ــ c gravity of | Sample 2 | .69 | IIVCDOCCOOL | MACIETURE | CAITENT | |
| | | | <u>′. 3</u> (%) | HYGROSCOPIC | | | |
| | | ction Factor | | Wt. Container + Air D | - | · · · · · · · · · · · · · · · · · · · | - |
| , 9. 03 | cabic adiic | | | Wt. Container + Oven | Dry Soil | <i>N</i> /A(c | 3) |
| | · <u>w</u> | EIGHT OF SAMI | <u> </u> | Wt. Container | N/A | (0 | 3) |
| Wt. Co | ntainer + S | oil | N/A (g) | Water Content | NIA | (9 | %) |
| Wt. Co | | _ | N/A (g) | | | | |
| Wt. Soi | | | 63,04 (g) | <u>R</u> | <u>EMARKS</u> | | |
| 14 (. 30) | • | · | <u> </u> | | | | |
| | COM | POSITE CORRE | TION | TUBE A | | | |
| 1st Rea | ding | <u>5</u> _at | 23.6°c | | | | |
| | | | N/A°C | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | Τ | |
| Date | Clock time | Elapsed time | Hydrometer reading | Hydrometer with composite correction | Temp. (°C) | Soil in suspension | Particle diameter |
| ! | , ,,,,e | (min) | | composite con ection | | (%) | (mm) |
| -20 | 0932 | 2.0 | /8 | /3 | 23.8 | 8.4 | 0.033 |
| | 0935 | 5.0 | 15 | 10 | 238 | 6.5 | 0.021 |
| -20 | 0945 | 15.0 | /3 | 8 | 23.9 | 5.2 | 0.012 |
| | | 30.0 | 12 | 7 | 23.8 | 4.5 | 0.009 |
| -20 | 1000 | | | | | 1 | |
| -20 | 1000 | 60.0 | 10 | 5 | 23.8 | 3. 2 | 10,006 |
| -20 -20 -20 -20 | 1030 | 60.0 250.00 | | | 23.8 | 3.2 | |
| -28 | - | | 10 8 4 | 3 | 23.8 | 1.9 | 0.006 |

John Rely

Checked By_

SPECIFIC GRAVITY OF SOILS DATA SHEET

| Test | Operator R.G. Alexaus | DER | 3 | 3-6-90 | · · · · · · · · · · · · · · · · · · · | |
|--|--|------------------|----------------------------------|-------------|---------------------------------------|------------|
| • | | | | | | |
| | EQUIPMENTITEM | NO. | | | DATE DUE | |
| Bal | ançe | 3364 | | | 3-25-90 | ļ |
| Ove | en Thermometer | 0007 | | | B-16-90 | |
| The | rmometer | <u> </u> | | | 2-9-91 | |
| Pyc | nometer | 2554 | | | W/A | |
| Vetti | ing Agent "O" WATER | | | | | |
| | DETERMINATION NO. | | 1 | | 2 | 3 |
| | Drying Container No. | | NIA | | NIA | NIA |
| | Wt. Container + Oven Dry Soil, ± (| 0.01g | N/A | | | |
| _ | Wt. Container, ± 0.01g | | NA | | | Α |
| w, | Wt. Oven Dry Soil, g | | 40 | 00 | · <u>-</u> _ | |
| | Pycnometer No. | | 2654 | | | |
| | Wt. Pycnometer, g | | 135 | 72 | | |
| N, | Wt. Pycnometer + Wetting Agent, | g | 387 | 08 | | |
| ~ <u></u> | Wt. Pycnometer + Wetting Agent | | 412 . | | | |
| | Temperature, T _x at W _b , °C | | | 20- | | |
| i _w | Specific Gravity of Wetting Agent a | t T _x | | 00 | | |
| i, | Specific Gravity of Soil at T _x | | | 69 | | |
| i, | Specific Gravity of Soil at 20°C | | | 69 | | 1 |
| | $\frac{G_{\mathbf{w}^*} \mathbf{v}_{\mathbf{w}^*} \mathbf{w}_{\mathbf{o}}}{\mathbf{w}_{\mathbf{o}} + (\mathbf{w}_{\mathbf{a}} - \mathbf{w}_{\mathbf{b}})}$ | | | | | |
| y _w = Unit Weight Of Water (g/cc) ^P G _s = K+G _t | | | Average Specific Gravity At 20°c | | | <u>2</u> . |
| : | es found in ASTM D854-58, Table 1 $G_s = G_t \text{When Test Run at 20 °c}$ | , | | - · · · · · | | ,I |
| L REG | QUIRED DATA ARE ACCURATELY AND OTILIZED CALIBRATED TEST | | | | | |

| Westing Hanford | jhouse d Company |
|-----------------|---------------------|
|-----------------|---------------------|

CHAIN OF CUSTODY

| Company Contact: JWLindberg | \ | Telephone 6 | 5005 |
|---|-------------------------------|--------------------|---------------------------|
| Sample Collected by: RandMill | er (Golder) | Date: Jan 2-4, 199 | D Time: NA |
| Sample Locations: Temporary W | ell Number MW- | 14 | |
| Ice Chest No.: NA | | | UHC-N-306-3 Page 33-3 |
| Remarks: | | | : |
| Bill of Lading No.: NA | Off Site | Property No.: NA | |
| Method of Shipment: Hand Car | тц | | |
| Shipped to: <u>Jerry Alexande</u> | <i>C</i> 6 | n physical tes | ting laboratory |
| $\frac{mw-14-3}{mw-14-3}$ | | | |
| MW-14-4 above 7 MW-14-5 below P | | | |
| MW-14-6 | | | |
| MW-14-7 | | | |
| <u>MW-14 - 8</u> | | | |
| MW-14-9 MW-14-10 | | | |
| MW-14-11 | | | |
| | | | |
| | | | |
| | | | |
| CHAIN OF POSSESSION Rel ing uished by: | Decrived by | • | 0 1 /7: |
| Sand it Will (GAI) | Received by: JESLINGBERG XUE | Lingleers | Date/Time: 1/6/40 1015 |
| Relinquished by: Justindberg The findberg | Received by: R.G. H/EXA | woen | Date/Time: 1/9/90 -1450 |
| Relinquished by: | Received by: | Cofema | Date/Time: |
| Relinquished by: | Received by: | | Date/Time: |
| | | | FVR\071889-B |

SAMPLING ANALYSIS REQUEST

| Part I: | Field | Section | 7 | | | | . ········· | · <u>·</u> | |
|-------------------------------|-------------|----------|----------|--|---------|---------------------------------------|-------------------|-------------|--|
| Collector | · Ray | amill | er Golo | ler) Dat | e Sampl | ed Janz | -4 <u>,199</u> 0T | 10e N/ | hours |
| Affiliati | on of | Sample | - Gold | er | | | <u>-</u> | | |
| Address _ | N/A | | | | | | | | |
| _ | ្រកប | mer | street | : | c1 ty | | | ate | zıp |
| Telephone | (509) | 376- | 2005 | Сопралу | Contact | JWL | indbero | (Field T | eam Lead |
| LABORATOR SAMPLE NUMBER | Y | COLLEG | | TYPE OF SAMPLE* | | FI | ELD INF | ORMATION* | * |
| MW-14 | <u>_</u> | MW-IL | 1-3 | Soil | | Plastic | bag | containe | e <u>r </u> |
| AW-14- | 4- | MW-1 | 14-4 | Soil | | | | containe | |
| | | | | | | | | | |
| | | | | | | | , | | |
| Aπalysis I | - Reques | ted Pa | urticle | Size | Analy | isis ar | nd Moi | stave (| ontent |
| | | | | · · · · · · · · · · · · · · · · · · · | | | · ••• ••• | | |
| Special Ha | andline | q and/or | r Storag | e NA | | | | | |
| ' | | | | | | | | | |
| | | | | | | | | | i. |
| PART II: | LABOR | ATORY S | ECTION** | | | ···· | | | _ ' |
| Received b | у | | | | Title | | | Date | |
| Analysis R | lequire | ed | | ······································ | | | | | |
| * Indicate | wheth | ner samp | ole is s | oil, sludg | e, etc. | , , , , , , , , , , , , , , , , , , , | * | | |

Figure 9-19. Example of hazardous waste sample analysis sheet.

NIME - 70

Revision 0 Date September 1985

| RADIATION RELEASE | RADIATION RELEASE |
|----------------------------|--|
| How Rapods Date 12-29-89 | Bldg. Hah Rapiple Date 12-29-89 |
| ed By | Released By |
| Operational Health Physics | Operational Health Physics |
|)-14-1 | Remarks |
| 54-3000-022 (09/88) | 54-3000-022 (09/8 |
| RADIATION RELEASE | RADIATION RELEASE |
| MW-13-90 Date 1: 2-90 | Bldg. MW-13- 4 Pate 1-2-90 |
| ed By M Capelano | Released By MCapelane |
| Operational Health Physics | Operational Health Physics |
| ks 1710-14-8-3 | Remarks |
| / Sample | / Durplo 54-3000-022 (09/8 |
| 54-3000-022 (09/88) | 34-3000-022 (03/8 |
| RADIATION RELEASE | RADIATION RELEASE |
| MW-13-5 Date 1-3-98 | 14,-11- |
| sed By | |
| Operational Health Physics | Released By Operational Health Physics |
| rks | Remarks MW-14-5 |
| 54-3000-022 (09/88) | 54-3000-022 (09/88 |
| RADIATION PELEASE | the second secon |
| RADIATION RELEASE | RADIATION RELEASE |

Released By

Remarks _

54-3000-022 (09/88)

54-3000-022 (09/88)

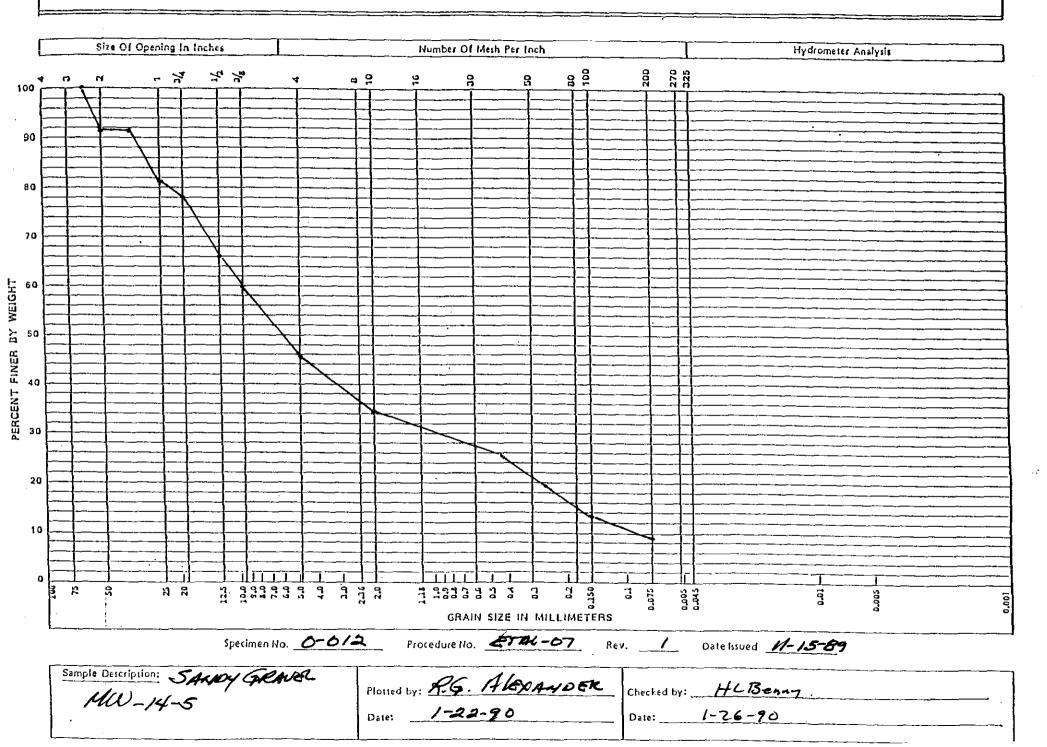
Remarks _

TEST REQUEST FORM

| Sample/Specimen No. <u>D-012</u> | Cost Code/Work Order No. ED332 |
|----------------------------------|---|
| Requested By: Org. 80232 | Person J. LINDBERG Date 1-22-90 |
| No. of Samples | Test Lab Information (Instruction Used) |
| SLEVE ANNLYSIS 1 | ETAL-07 |
| Hyprometer 1 | ETAL-07 (IF RED) |
| N/A N/A | N/A |
| N/A N/A | N/A |
| • | |
| Remarks FIEW SAMPLE | Received By: RG Alexanoer Date 1-9-90 Approved By: RG Alexanoer Date 1-22-90 |

| SIEVE ANALYSIS DATA SHEET | | | | | | | |
|---|--|------------------|-------------------------------------|--------------|--------------------------|------------------|----------|
| Sample ID_0~012 Page _/_ of _/_ | | | | | | | |
| | Te | sted By <u></u> | C ALEXAN | DER I | ate_ 1-22 | -90 | |
| | Procedure ETAL-07 Rev Date Issued N-/5-89 | | | | | N-15-89 | |
| | EQUIPMENT ITEM CALIBRATION NO. DATE DUE Balance 3304 3-25-90 Thermometer 0006 Z-6-90 N/A N/B N/A | | | | | | |
| Sampl | | | SAMOY GR | | — Sieve Ti □ stocky | | nin) |
| BEF | | | A AFTER TE | | | | |
| Sieve ID Number | Sleve Slze | Sample Weight | Cumulative Wt. Retained (g) | % Retained | Cumulative 7 Retained | Cumulative 2 | % Pass |
| NA | 2 | 2524.24 | 120.79 | 8.7 | 8.7 | 91.3 | 91.3 |
| | 1/2 | | 220.79 | 8.7 | 8.7 | 91.3 | 91.3 |
| | 1 | | 485.94 | 19.3 | 19.3 | 80.7 | 80.7 |
| | 3/4 | | 560.24 | 22.2 | 22.2 | 77.8 | 77.8 |
| | 1/2 | | 850.10 | 33.7 | 33.7 | 66.3 | 66.3 |
| | 3/8 | | 1022.02 | 40.5 | 40.5 | 59.5 | 59.6 |
| | 1/4 | • | 1374,46 | 54.4 | 54.4 | 45.6 | 45.6 |
| | #10 | 2524.27 | 1661.03 | 65.8 | 65.8 | 34.2 | 34.2 |
| | #40 | 111.85 | 28.46 | 25.4 | 25,4 | 74.6 | 25.5 |
| | #60 | | 48.52 | 43.4 | 43.4 | 56.4 | 19.4 |
| | #100 | | 67.96 | 60.8 | 60.8 | 39.2 | 13.4 |
| 4 | \$ 200 | 4 | 83.03 | 74.2 | 74.2 | 25.8 | 8.8 |
| | Finess 1 | Modules (FM | 77. | See ASTM C 1 | 36-83, Section | 8.2) | ,· |
| MATERI | ALS FII | VER THAN | NO. 200 SIE | VE BY WASE | ING | | <u></u> |
| C=Percen | tage of | Material Pa | ssing a 200 Siev | | Remar | | <i>I</i> |
| D=Origina | D=Original Dry Weight of Sample ### WASH GRADING SMALL FIELD | | | | | | |
| E=Dry Weight of Sample After Washing/Sieve 13.03g | | | | | | | |
| $C = \langle (D-E)/D \rangle \times 100$ | | | | | | | |
| OF | | R WAS TR | URATELY AND AINED AND U Benny | | ATED INSTRU | | ST |
| <u> </u> | | | 7 | | | A-6400-204(Z-87) | |

GRAIN SIZE ANALYSIS PLOT



SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-14 REV. NO. Ø

THERMOMETER NO. 2006 CALIBRATION DUE DATE 2-6-90

| SAMPLE NO. | WET WT. + CAN | DRY WT. + CAN | CAN WT. | WET WT. SOIL | DRY WT. SOIL | % WATER |
|---------------------------------------|---------------|---------------------------------------|---------|--------------|--------------|----------|
| 0-012 | 3179.66 | 3102,33 | 578.66 | 2601,60 | 2524,27 | 3.04 |
| | | | | | | |
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ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR:

R.G ALEXANDER DATE 1-22-90

| Westingh Hanford | ouse Company |
|---------------------|-----------------|
| Hanford | Company |

CHAIN OF CUSTODY

| Company Contact: JWLindberg | Teleph | Telephone 6-5005 | | |
|------------------------------------|----------------------------|---------------------------------------|--|--|
| Sample Collected by: RandMiller (| Folder) Date: Jan 2- | -4,1990 Time: NA | | |
| Sample Locations: Temporary Well N | umber MW-14 | | | |
| | | ge No. WHC-N 306-3 Page 33-34 | | |
| Remarks: | | · · · · · · · · · · · · · · · · · · · | | |
| Bill of Lading No.: <u>NA</u> | Off Site Property No | .:_ <i>N</i> A | | |
| Method of Shipment: Hand Carry | | | | |
| Shipped to: Jerry Alexander (U | 140) 2101-m physic | al testing laboratory | | |
| MW-14-3 | ample Identification | | | |
| MW-14-4 above 7 | | | | |
| MW-14-5 below P | | | | |
| <u>MW-14-6</u> | | <u> </u> | | |
| MW-14-7 MW-14-8 | | | | |
| Mul-14-9 | | | | |
| MW-14-10 | | | | |
| MW-14-11 | | | | |
| | | | | |
| | | | | |
| CHAIN OF POSSESSION | | | | |
| | ceived by: | Date/Time: | | |
| | DLindberg XV Lengleers | 1/6/10 1015 | | |
| Reinquished by: Re | ceived by: R.G. HIEXANDER | Date/Time: 1/9/90 -/450 | | |
| 77/7 | ceived by: Rleslife C | Date/Time: | | |
| Relinquished by: | ceived by: | Date/Time: | | |
| | | FVR\071889-B | | |

SAMPLING ANALYSIS REQUEST

| Part I: Fie | eld Section | | | <u> </u> | |
|--------------------------------|---|-------------------------------------|-----------------|------------------|---------------|
| Collector _ | Rand Miller | Date Samp | 1ed Jan 2-4,199 | offine <u>NA</u> | hours |
| Affiliation | of Sampler _ Gala | der | | | |
| Address | NA | city | | state | |
| Telephone <u>(f</u> | NA number street (M) 374-5605 | Company Contac | | | zip eam Le |
| LABORATORY SAMPLE NUMBER | COLLECTOR'S SAMPLE NO. | TYPE OF SAMPLE* | FIELD I | | |
| | MW-14-5 | 1 | Plastic bag | | |
| | MW-14-6 MW-14-7 | Soil . | | 1, | |
| | MW-14-8 | <u>soil</u> | <u> </u> | 11 | |
| Analysis Requ | uested <u>Particle</u> | Size Analy | <u> ۱۷</u> | | · |
| | | | | | |
| Special Handl | ling and/or Storag | e <u>NA</u> | | | |
| | - | | ···· | | |
| PART II: LAE | BORATORY SECTION** | | | | <i></i> |
| Received by _ | | Title | | Date | |
| Analysis Requ | ifred | | | | |
| Indicate wh | ether sample is so page for addition | oil, sludge, etc nal information | relative to sa | ple location | • |

Figure 9-19. Example of hazardous waste sample analysis sheet.

NIME - 70

Revision 0 Date September 1985

| RADIATION RELEASE | RADIATION RELEASE |
|---|--|
| Bldg. How Reports Date 12-29-19 Released By | Released By Jy |
| Operational Health Physics Remarks | Operational Health Physics Remarks |
| 54-3000-022 (09/88) | 54-3000-022 (09/88) |
| RADIATION RELEASE | RADIATION RELEASE |
| Released By Market Capitana | Released By Market Deland Operational Health Physics |
| Operational Health Physics Remarks | Remarks/ Sample |
| 54-3000-022 (09/88) | 54-3000-022 (09/88) |
| RADIATION RELEASE Bldg. MW-13-5 Date 1-3-98 | RADIATION RELEASE Bldg. MW-X- Date 1-3-90 |
| Released By Operational Health Physics Remarks | Released By Operational Health Physics Remarks MW - 14-15 |
| 54-3000-022 (09/88) | 54-3000-022 (09/88) |
| RADIATION RELEASE Bidg. WM - / 4 Date 1-4-20 Released By Operational Health Physics | RADIATION RELEASE Bidg, 4/M-14-8 Date 1-49 Rejeased By |
| Remarks | Operational Health Physics Remarks |

54-3000-022 (09/88)

54-3000-022 (09/88)

TEST REQUEST FORM

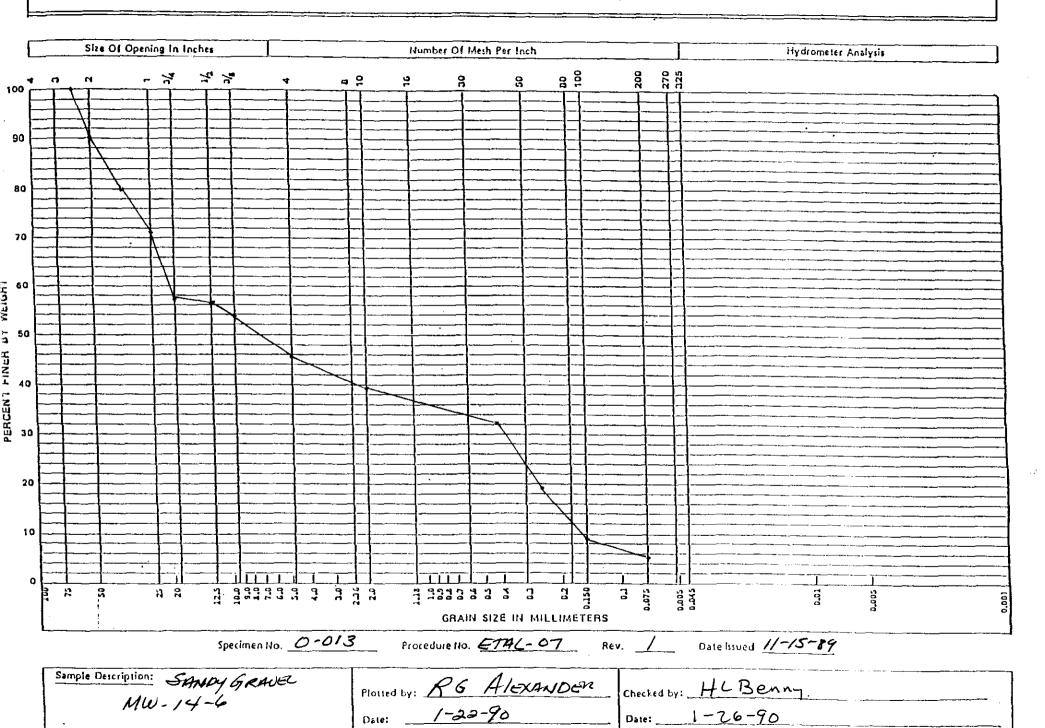
| Sample/Specimen No. | 0013 | Cost Code/Work Order No. ED 332 |
|---------------------|-------------------|---|
| Requested By: Org. | 80232 | Person J. LIND BERG- Date 1-27-90 |
| Test Requested | No. of Samples | Test Lab Information (Instruction Used) |
| SIEVE ANALYSIS | [| ETAL-07 |
| HYDROMETER | 1 | ETAL-07 (IF RED) |
| N/A | N/A | N/A |
| N/A | NIA | <u>N/A</u> |
| | • | |
| Remarks FIELD S | BAMPCE | Received By: RG ALEXANDER Date 1-9-90 Approved By: RG ALEXANDER Date 1-22-91 |

| | | | SIEVE ANAI | YSIS DAT | A SHEET | | |
|------------------------|---|------------------|--------------------------------------|--------------|---------------------------------|----------------------|--------|
| | Sampl | le ID <u></u> 6- | 013 | | Page1 | of | |
| | Те | sted By <u></u> | ?G ALEXAN | IDER I | Date 1-22. | 90 | |
| | Pr | ocedure_5 | ETAC-07 Re | <u>v</u> | Date Issued <u>↓</u> | 1-15-89 | |
| | EQUIPMENT ITEM CALIBRATION NO. DATE DUE Balance 3304 3- 25-90 Thermometer 2006 2-6-90 A/A N/A N/A | | | | | | |
| Sampl | Le Desc | eription_ | SANOY GRAV | EL | - Sieve Tir | ne <u>10</u> (r | nin) |
| | reduced | 1 by | splitting [| | : atockp | ile | |
| BEF | (B) ORE TI | est wt.W | A AFTER TE | ST WT. U/A | $\frac{B-A}{B}X \ 100 = \Delta$ | V/A % LOSS | |
| Sieve ID Number | Sieve Size | Sample Weight | Cumulative Wt. Retained (g) | % Retained | Cumulative % | Cumulative 7 Pass | % Pass |
| N/A | 2 | 2946.38 | 288.03 | 9.8 | 9.8 | 90.2 | 90.2 |
| | 1/2 | 1 | 596.24 | 30.2 | A0.2 | 79-8 | 79.8 |
| | ĺ | | 859.59 | 29.2 | 29.2 | 70.8 | 70.8 |
| | 3/4 | | 1259.61 | 42.8 | 42.8 | 57.2 | 57.2 |
| | 1/2 | | 1284.15 | 43.6 | 43.6 | 56.4 | 56.4 |
| | 3/8 | | 1369.09 | 46.5 | 46.5 | 53.5 | 53.5 |
| | #4 | • | 1598.19 | 54.2 | 54.2 | 458 | 458 |
| | #10 | 2946.38 | 1786.04 | 60.6 | 60.6 | 39.4 | 39.4 |
| | #40 | | 28.09 | 18.4 | 18.4 | 81.6 | 32,2 |
| | #60 | 1 | 80.07 | 52.5 | 52.6 | 47.5 | 18.7 |
| | #100 | | 118.12 | 77.4 | 774 | 22.6 | 8.9 |
| .* | # 200 | 1 | 133.27 | 87.4 | 87.4 | 12.6 | 5.0 |
| | Finess I | Modules (FM |) N/A (| See ASTM C 1 | 36-83, Section | B.2) | |
| C=Percent D=Orlgina | MATERIALS FINER THAN NO. 200 SIEVE BY WASHING C=Percentage of Material Passing a 200 Sieve 126% D=Original Dry Weight of Sample 15254% E=Dry Weight of Sample After Washing/Sieve/3321% C = <(D-E)/D> X 100 Remarks WASH GRAONNS SMALL FIELD SAMPLE | | | | | | |
| OP | ERATO | R WAS TR | urately and ained and us Senny | | ATED INSTRU | | T |

A-6400-204(2-87)

9212 11 773

GRAIN SIZE ANALYSIS PLOT



SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-14 REV. NO. Ø

THERMOMETER NO. 2006 CALIBRATION DUE DATE 2-6-90

| | 1 | ſ | | 1 | ī | |
|------------|---------|---------------|-------------|--|---------|-------------|
| SAMPLE NO. | | DRY WT. + CAN | | | | % WATER |
| 0-013 | 3709.74 | 3534.86 | 588.48 | 3121.26 | 2946.38 | 5.94 |
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ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: R.G. ALEXANDER DATE 1-22-90

| W | Westingh Hanford | ouse Company |
|----------|---------------------|-----------------|
|----------|---------------------|-----------------|

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CHAIN OF CUSTODY

| Company Contact: JWLindberg | Telephone 6-5005 |
|--|--|
| Sample Collected by: RandMiller (Go | Telephone 6-5005 Date: Jan 2-4, 1990 Time: NA |
| Sample Locations: Temporary Well Vur | - |
| | Field Logbook & Page No. WHC-N-306-3 Page 33-3 |
| Remarks: | , • |
| | |
| Bill of Lading No.: <u>NA</u> | Off Site Property No.: <u>NA</u> |
| Method of Shipment: Hand Carry | |
| Shipped to: <u>Jerry Alexander (WI</u> | 10) 2101-m physical testing laboratory |
| MW-14-3 | nple Identification |
| MW-14-4 above 7 | |
| MW-14-5 below P | |
| MW-14-6 | × |
| MW-14-7 | |
| MW-14-3 | |
| MW-14-9 | |
| MW-14-10 | |
| MW-14-11 | |
| | |
| | |
| | |
| CHAIN OF POSSESSION | |
| | ived by: Date/Time: |
| fand it Mile (GAI) JUL | indber 10 June 16/90 1015 |
| | ived by: Date/Time: 1/19/90 -1450 |
| Relinquished by: | ved by: Date/Time: |
| Relinquished by: Recei | ved by: Date/Time: |
| | FVR\071889-B |

SAMPLING ANALYSIS REQUEST

| Part I: Fi | eld Section | | | | | |
|--------------------------------|--|------------------------------------|----------------|-----------------|----------------|--------------|
| Collector _ | Rand Miller | Date Sam | pled Jan2 | <u>-4,199</u> 0 | Time <u>NA</u> | 7 nou |
| Affiliation | of Sampler _ Gold | ler | , <u>-</u> | - | | |
| Address | NÁ | cit | | | | |
| Telephone <u>(</u> | number street 509) 374-5005 | | | | | zip am Le |
| LABORATORY SAMPLE NUMBER | COLLECTOR'S SAMPLE NO. | TYPE OF SAMPLE* | | - | ORMATION** | |
| | MW-14-5 | Soil_ | Plastic | bag | Container | |
| | MW-14-6 | Soil | | ,, | // | |
| | MW-14-7 | Soil | r ₁ | 4 | 1, | |
| | MW-14-8 | Soil | (1 | ϵ_{t} | 11 | |
| Analysis Rec | quested <u>Particle</u> | Size Anali | 1712 | | | |
| | | · · · · | · · | | | ···· |
| Special Hand | Hing and/or Storage | <i>_NA</i> | | | | |
| | | | | | | |
| PART II: LA | BORATORY SECTION** | | | | : | |
| Received by | | Titl | e | | Date | |
| | uired | | | | | |
| * Indicate w **Use back o | hether sample is so f page for addition | oil, sludge, et nal information | c. relative | to same | ole location. | |

Figure 9-19. Example of hazardous waste sample analysis sheet.

NIME - 70

Revision 0 Date September 1986

| RADIATION RELEASE | RADIATION RELEASE |
|--|---|
| Bldg. How Rapids Date 12-29-59 | Bidg. Har, Rapiole Date 12-29-8 |
| Released By Operational Health Physics | |
| Operational Health Physics | Operational Health Physics |
| Remarks | Remarks 14-2 |
| MW-14-1 | MW 13-2 |
| 54-3000-022 (09/88) | 54-3000-022 (09 |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. 1 2-90 | Bldg. 10-13-6 pate 1-2-90 |
| Released By M Carland | Released By W/Capelanel |
| Operational Health Physics | Operational Health Physics |
| Remarks 1910 13 | Remarks |
| - Dauple | 1 Sample 54-3000-022 (09) |
| 54-3000-022 (09/88) | 33000-022 (03 |
| RADIATION RELEASE | Marie Comment of the |
| | RADIATION RELEASE |
| Bldg. MW-13-5 Date 1-3-98 | Bldg. MW-X- 1 Date 1-3-90 |
| Released By | Released By |
| Operational Health Physics | Operational Health Physics |
| Remarks | Remarks MW-14-15 |
| | |
| 54-3000-022 (09/88) | 54-3000-022 (09/ |
| | |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. WM-14-7 Date 1-4-80 | 14 199 |
| Released By | Bldg, (14 -) Date |
| Operational Health Physics | Released By Oberational Health Physics |
| Remarks | Operational Health Physics |
| , | Remarks |

TEST REQUEST FORM

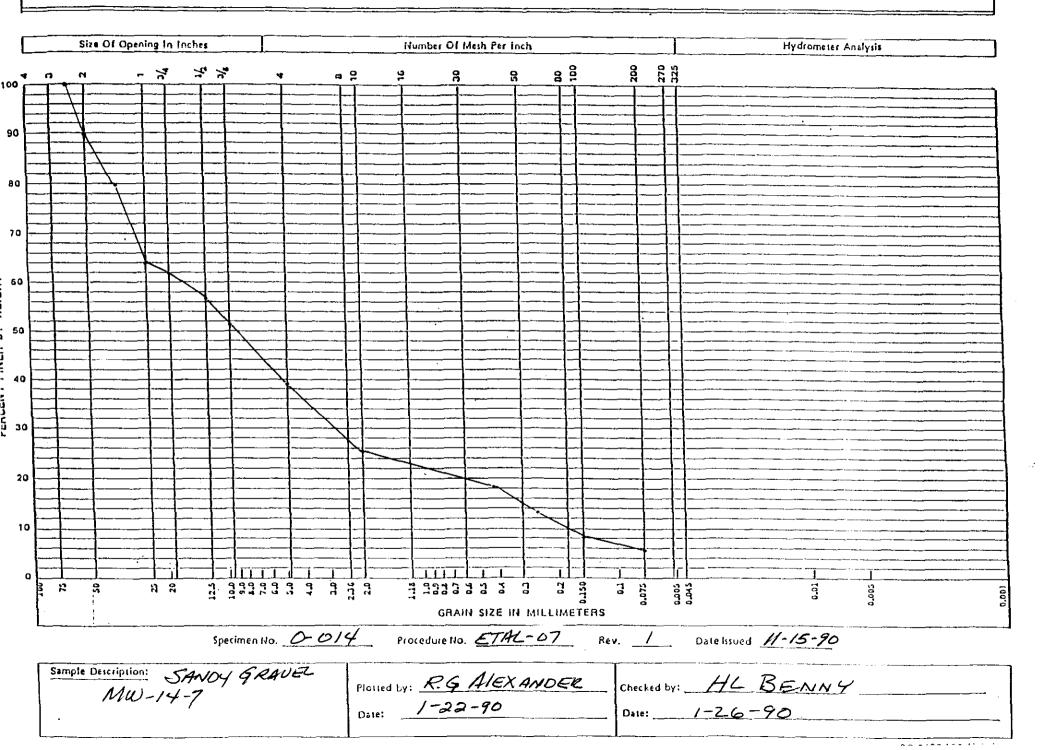
| Sample/Specimen No Requested By: Org | | Person J. LINDBERG Date 1-22-90 |
|---|-------------------|--|
| Test Requested | No. of Samples | Test Lab Information (Instruction Used) |
| SIEUE ANALYSIS | | ETAL-07 |
| Hydrometer | | ETAL-07 (IF REQ) |
| N/A | NA | NIA |
| 4/4 | N/A | N/A |
| | • | |
| Remarks FIELD SA | MAUE | Received By: R.G. ALEX ANDER Date 1-9-90 |
| MW-14-7 | | Approved By: R. & Alexander Date 1-22- |

| | | | | _ · | | | |
|--------------------|---|--------------------------------|--------------------------------|------------------------------------|---------------------------|---------------------------------------|--------|
| | | | SIEVE ANAI | YSIS DAT | A SHEET | | |
| | | le ID <u>O</u> - | | | Page | | |
| | Te | sted By F | R.G ALEXA | voer i | Date ! - 22 | -90 | |
| | Pr | ocedure_ | ETAL-07 Re | <u>v</u> j | Date Issued <u>!</u> | 1-15-89 | |
| | | EQUIPME Balance Thermome | ter | LIBRATION N 3304 0006 N/A | NO. DATE I 3-25 2-4 | -90 -90 | |
| Sampl | | | SANDY GRI | | — Sieve Tir | • | nin) |
| BEF | /p) | | AFTER TE | /A\ | | | |
| Sleve ID Number | Sleve Slze | Sample Weight | Cumulative Wt. Retained (g) | % Retained | Cumulative % | Cumulative 2 | % Pass |
| N/A | 2 | 2588.13 | 269-58 | 10.4 | 10.4 | 89.6 | 89.6 |
| | 1/2 | 1 | <i>53</i> 6.7 <i>5</i> | 20.5 | 20.5 | 79.5 | 79.5 |
| | 1 | | 930.75 | 36.0 | 36.0 | 64.0 | 64.0 |
| | 3/4 | | 985.94 | 38.1 | 38./ | 61.9 | 61.9 |
| | 1/2 | | 1/23.07 | 43.4 | 43.4 | 56.6 | 56.6 |
| | 3/8 | | 1261.00 | 48.7 | 48.7 | 5/.3 | 5/.3 |
| | #4 | V | 1584.05 | 101.2 | 61.2 | 38.8 | 38.8 |
| | #10 | 2588.13 | 1928.28 | 74.5 | 74.5 | 25.5 | 25.5 |
| | #40 | 98.12 | 28.45 | 28.8 | ZB.8 | 71.2 | 18.2 |
| | #60 | | 48.20 | 48.8 | 48.8 | 51,2 | 13.1 |
| | #100 | | W-32 | 67.2 | 67.2 | 328 | 8.4 |
| 4 | #200 | 1 | 77.10 | 78.1 | 78.1 | 21.9 | 5.6 |
| | Finess | Modules (FM | r) <i>N/A</i> (| See ASTM C 1 | 36-83, Section | 8.2) | |
| MATERI | ALS FI | NER THAN | NO. 200 SIE | VE BY WASE | | | |
| | C=Percentage of Material Passing a 200 Sieve 2/.9 % Remarks WASH GRADING | | | | | | |
| | • | elght of San | _ | 98.72 g | SME | IL FIELD |) |
| E=Dry We | E=Dry Weight of Sample After Washing/Sieve $77.10g$ SANDLE $C = \langle (D-E)/D \rangle \times 100$ | | | | | · · · · · · · · · · · · · · · · · · · | |
| OF | ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS Checked By HL Benny Date 1-26-90 | | | | | | |
| | A-640D-204(2-67) | | | | | | |

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GRAIN SIZE ANALYSIS PLOT



SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-14 REV. NO. Ø

THERMOMETER NO. 0006 CALIBRATION DUE DATE 2-6-90

| | | | | | <u>.</u> | |
|------------|---------------|---------------|---------------|--------------|---------------|---------|
| SAMPLE NO. | WET WT. + CAN | DRY WT. + CAN | CAN WT. | WET WT. SOIL | DRY WT. SOIL | % WATER |
| 0-014 | 3264.54 | 3172.85 | 584.72 | 2679.82 | 2588.13 | 3.54 |
| | | | | | | |
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ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: R.G ALEXANDER DATE 1-22-90

| | Westingh Hanford | ouse Company |
|--|---------------------|-----------------|
|--|---------------------|-----------------|

CHAIN OF CUSTODY

| Company Contact: JWLindberg | · · · · · · · · · · · · · · · · · · · | Telephone 6-5005 | |
|------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Sample Collected by: RandMille | r (Golder) Dat | : Jan 2-4, 1990 Time: | NA |
| Sample Locations: Temporary We | 11 Number MW-14 | | |
| Ice Chest No.: NA | | | 3 Page 33-34 |
| Remarks: | | | <u> </u> |
| Bill of Lading No.: NA | Off Site P | aperty No.: <u>NA</u> | |
| Method of Shipment: Hand Carv | `Ц | | |
| Shipped to: <u>Jerry Alexander</u> | WHC 2101-M Sample Identification | physical testing labo | ratory |
| MW-14-3 | <u> </u> | | |
| MW-14-4 above 7 | | | <u> </u> |
| MW-14-5 below P MW-14-6 | | | |
| MW-14-7 | | | |
| MW-14 - 8 | | | |
| MW-14-9 | = | | |
| MW-14-10 | | | · · · · · · · · · · · · · · · · · · · |
| MW-14-11 | | | |
| | | · · · · · · · · · · · · · · · · · · · | ······ |
| | | | |
| CHAIN OF POSSESSION | | | |
| Relinguished by: | Received by: , , D | n ∩ Date/Tim | ne: |
| ford it mile (GAI) | Julindberg XV Je | influera 1/6/40 | |
| Relinquished by: | Received by: | Date/Tim | |
| Justindberg the fundhera | R.G ALEXAND | 17/9/ | 91 - 1450 |
| Relinquished by: | Received by: | Date/Tim | ie: |
| Relinquished by: | Received by: | Date/Tim | ie: |
| | | F | VR\071889-B |

SAMPLING ANALYSIS REQUEST

| Section | | | |
|----------------|---|---|--|
| nd Miller | Date Sampled | Janz-4,190 Time NA | ропт₃ |
| | | | |
| UA | | | |
| mper stree | et ;,,, city | state | zip |
|) 374-5005 | Company Contact | JW Lindberg (Field Te | any L |
| | TYPE OF | <i>y</i> • | |
| MW-14-5 | Soil Pl | astic bag Container | |
| | , | 11 /1 /1 | |
| MW-14-7 | Soil | h U | |
| MW-14-8 | -≶eil | (1) (1) | |
| ited Particle | Size Analysis | | ·· |
| 70,70 | - Tracings | | |
| | | | |
| g and/or Store | age <u>NA</u> | | |
| ATORY SECTION | | | |
| | Title | Date | |
| | | | |
| | SamplerGi JA moer stree) 374-5605 COLLECTOR'S SAMPLE NO. MW-44-5 MW-44-6 MW-44-8 sted _Particle g and/or Stora | Sampler Golder JA Meer street city 374-5005 Company Contact COLLECTOR'S TYPE OF SAMPLE* MU-14-5 Soil Pl MW-14-6 Soil Pl MW-14-8 Soil MW-14-8 Soil ted Particle Size Analysis | DA MEDER STREET CITY STATE 1 374-5005 Company Contact JW Lindberg (Field Tell COLLECTOR'S TYPE OF SAMPLE* FIELD INFORMATION** MU-H-5 Soil Plastic bag Container MW-H-6 Soil """ MW-H-7 Soil """ MW-H-8 Soil """ Ted Particle Size Analysis |

Figure 9-19. Example of hazardous waste sample analysis sheet.

NIME - 70

Revision 0 Date September 1986

| RADIATION RELEASE | RADIATION RELEASE |
|--|--|
| Bldg. How Rapods Date 12-29-89 | Bldg. Har, Rapiple Date 12-29-89 |
| Released By | Released By |
| Operational Health Physics | Operational Health Physics |
| Remarks | Remarks |
| MW-14-1 | MW 13-Z |
| 54-3000-022 (09/88) | 54-3000-022 (09/8 |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. MW-73-90 Date 1+2-90 | Bldg. MW-13- 0 pate 1-2-90 |
| Released By M Calland | Released By |
| Operational Health Physics | • |
| Remarks NV 14-33 | Remarks |
| - Dauple | 1 Saufla 54-3000-022 (09/1 |
| 54-3000-022 (09/88) | 34-3000-022 (03// |
| DADIATION DELEACE | The second secon |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. MW-13-5 Date 1-3-98 | Bldg. MW-X- 1 Date 1-3-90 |
| Released By | |
| Operational Health Physics | Released By Operational Health Physics |
| Remarks | Remarks MW-14-15 |
| | |
| 54-3000-022 (09/88) | 54-3000-022 (09/8 |
| RADIATION RELEASE | |
| Was 14 = 1 1.16-20 | RADIATION RELEASE |
| Bidg. Date | 1111-14-8 Date 1-49 |
| Released By Operational Health Physics | Blog, 4/1/2 |
| Remarks | Released By Operational Health Physics |
| Reliidika | Remarks |
| 54-3000-022 (09/88) | |
| : | 54-3000-022 (09/ |

TEST REQUEST FORM

| Sample/Specimen No. | 0-015 | Cost Code/Work Order No. ED 332 |
|---------------------|-------------------|--|
| Requested By: Org. | 80232 | Person J. LNDBERG Date 1-22-90 |
| Test Requested | No. of Samples | Test Lab Information (Instruction Used) |
| SIEVE ANALYSIS | | ETAL-07 |
| Hydrometer | 1 | ETAL-OR (LF RED) |
| N/A | N/A | A\/A |
| N/A | W/A | N/A |
| | • | |
| Remarks FIELD SAI | MPLE | Received By: RG Alexander Date 1-9-9- |
| | | Approved By: R.G. Alexanizat Date 1-22-91 |

| | | | SIEVE ANA | | | | |
|-----------|-----------------|--------------|-----------------|---------------------------------------|-----------------------------|-----------------|--------------|
| | | | 015 | | Page/ | | |
| | Te | sted By_/ | P.G. ALEXA | NDEK I | Date /- 22- | 90 | |
| | Pr | ocadura E | =TAL-07 Pa | · / . | Date Issued <u>/</u> | 1-15-89 | |
| | 1 ** | 00004410_ | 100 | · · · · · · · · · · · · · · · · · · · | pate Issued <u>/</u> | 7 13 87 | |
| | | EQUIPME | NT ITEM CA | LIBRATION_N | NO. DATE I | UE | |
| | | Balance | *** | 3304 | NO. DATE I 3-2. 2-6 | 5-90 | |
| | İ | Inermome | /4 | N/A | N/A | 1 | |
| | | | | | ····· | | |
| Samp | le Desc | eription | SILTY SAND | <u> </u> | Sieve Tir | me <u>/O</u> (r | nin) |
| | | | splitting | | g stockp | lle | |
| गुन | (פ) ויד אאטי | ጉርጥ ነውጥ | AFTER TE | (A) STWT | $\frac{B-A}{B}X 100 = -$ | Z LOSS | |
| DEF | T T | T | | T | B | 70 2000 | , |
| Sleve ID | Steve | Sample | Cumulative Wt | % Retained | Cumulative % | ſ | % Pass |
| Number | Size | Weight | Retained (g) | | Retained | Pass | F |
| N/A | 1.] | | | | | | |
| | 4 | | 1 | 1 | 1 | * | 1 |
| | 1 | Ø | Ø | Ø | Ø | 100 | 100 |
| | 3/4 | 1236.03 | 30. VI | 2.4 | 2.4 | 97.6 | 97.6 |
| | 1/2 | | 72.41 | 5.9 | 5.9 | 94.1 | 94.1 |
| | 3/8 | | 117.42 | 95 | 9.5 | 90.5 | 90.5 |
| | #4 | • | 190.46 | 15.4 | 15.4 | 84.6 | 84.6 |
| | #10 | 1236.63 | 267.96 | 21.7 | 21.7 | 78.3 | 78.3 |
| | #40 | 126.45 | 6.78 | 5.4 | 5.4 | 94.6 | 74.1 |
| | ¥60 | 1 | 19.56 | 15.5 | 15.5 | 84.5 | 66.2 |
| | #100 | | 36.95 | 24.5 | 24.5 | 75.5 | 59.1 |
| 4 | #200 | , | 47.69 | 37.7 | 37.7 | 62.3 | 48.8 |
| | | Modules (FM | () N/A | (See ASTM C 1 | 36-83, Section | 8.2) | |
| MATERI | ALS FI | NER THAN | NO. 200 SIE | VE BY WASE | | | |
| C=Percen | tage of | Material Pas | sing a 200 Slev | e 42.3 % | Remark | | 7, |
| D=Origina | ul Dry We | eight of San | nple | 12645 | SMA | | <u> </u> |
| E=Dry We | _ | _ | r Washing/Sieve | 4769g | SAM | રહ | |
| | C = < | (D-E)/D> X | 100 | | | | |
| ΙΛ | L DATA | ARE ACC | URATELY ANI | COMPLETE | LY RECORDE | THE TES | T |
| | | | | SED CALIBR | ATED INSTRU | | |
| Ch | recked | By HC | Benny | | | 1-26-90 | |
| | | | - | | ٨. | -8400-204(2-87) | |

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE

Date 3-590

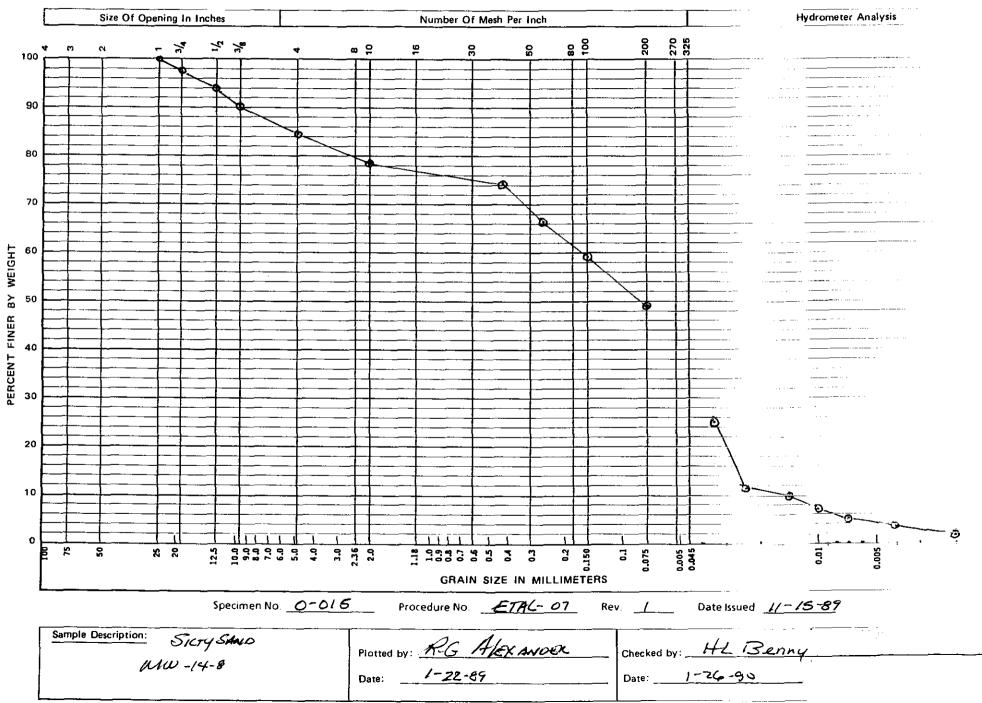
FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By

agand

HYDROMETER ANALYSIS DATA SHEET

GRAIN SIZE ANALYSIS PLOT



SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-K REV. NO. Ø

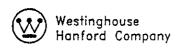
THERMOMETER NO. <u>OOO6</u> CALIBRATION DUE DATE <u>2-6-90</u>

| SAMPLE NO. | WET WT. + CAN | DRY WT. + CAN | CAN WT. | WET WT. SOIL | DRY WT. SOIL | % WATER |
|------------|---------------|---------------|----------------|--------------|--------------|---------|
| 0-015 | 2141.12 | 1825.42 | <i>589</i> ·39 | 1551.73 | 1236,03 | 25.54 |
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ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: R.G. ALEXANDER

DATE /-22-90



CHAIN OF CUSTODY

| Company Contact: JWLindberg | | Telephone 6-5005 | |
|--|-----------------------|---------------------------------------|-----------------|
| Sample Collected by: RandMille | r (Golder) Date: | Jan 2-4, 1990 Time: 1 | UA |
| Sample Locations: Temporary We | 11 Number MW-14 | | |
| Ice Chest No.: NA | | k & Page No. WHC-N 306- | 3 Page 33-3 |
| Remarks: | | | · |
| | | | |
| Bill of Lading No.: NA | Off Site Prop | perty No.: NA | |
| Method of Shipment: Hand Cary | | | |
| Shipped to: <u>Jerry Alexander</u> | -(WHC) 2101-M p | hysical testing labo | ratory |
| MW-14-3 | Sample Identification | · | ر. |
| MW-14-4 above 7 | | | |
| MW-14-5 below P MW-14-6 | | | <u> </u> |
| MW-14-7 | | | |
| | | | |
| MW-14-10 | | | |
| MW-14-11 | | | |
| | | , , , , , , , , , , , , , , , , , , , | |
| | | | |
| CHAIN OF POSSESSION Relinquished by: | Received by: , , D | n ∩ Date/Tim | ne: |
| ford it mile (GAI) | Julindberg JU Jean | fliera 1/6/90 | |
| Relinquished by: Julindpeta Ill Pendhara | Received by: | Date/Tim | , |
| Relinquished by: | Received by: | Date/Tim | <u> </u> |
| Relinquished by: | Received by: | Date/Tim | ne: |
| | | F | VR\071889-B |

SAMPLING ANALYSIS REQUEST

| Part I: Field Section | |
|---|---|
| Collector Rand Miller Da | te Sampled Jan 2-4/990 Time NA hours |
| Affiliation of Sampler Golder | |
| Address NA | city state zip |
| | - |
| Telephone (509) 374-5005 Company | Contact JW Lindberg (Field Team Lea |
| LABORATORY SAMPLE COLLECTOR'S TYPE OF NUMBER SAMPLE NO. SAMPLE* | : |
| MW-14-5 Soil | Plastic bag Container |
| MW-14-6 Soil | 11 11 11 |
| MW-14-7 Soil | 1, 1, |
| | · (1 11 |
| <u>MW-14-8</u> <u>Soil</u> | · · |
| Analysis Requested <u>Particle Size</u> | Analysis |
| | 1 |
| | |
| Special Handling and/or Storage _ N A | |
| special handring and/or scorage _///n | |
| | |
| PART II: LABORATORY SECTION** | |
| Received by | Title Date |
| nalysis Required | |
| Indicate whether sample is soil, sludg *Use back of page for additional inform | e, etc. ation relative to sample location. |

Figure 9-19. Example of hazardous waste sample analysis sheet.

NIME - 70

Revision 0 Date September 1986

| RADIATION RELEASE | RADIATION RELEASE | | | |
|--|--|--|--|--|
| Bldg. How Rapods Date 12-29-89 | Bldg. Hoh Rapiple Date 12-29-89 | | | |
| Released By | Released By TW | | | |
| Operational Health Physics | Operational Health Physics | | | |
| Remarks | Remarks 14-2 | | | |
| MW-14-1 | MW 13-2 | | | |
| 54-3000-022 (09/88) | 54-3000-022 (09/88 | | | |
| RADIATION RELEASE | RADIATION RELEASE | | | |
| Bldg. MW-13-90 Date 1. 2-90 | Bldg. MW-13- 1 9ate 1-2-90 | | | |
| | Released By Magelane | | | |
| Released By Operational Health Physics | Operational Health Physics | | | |
| Remarks MW-14-3 | Remarks | | | |
| Ac all | 1 Sauple | | | |
| 54-3000-022 (09/88) | 54-3000-022 (09/88 | | | |
| 34-3000-022 (03/66) | | | | |
| RADIATION RELEASE | | | | |
| 115- | RADIATION RELEASE | | | |
| Bldg. MW-13-98 | Bldg. MW-X- Date 1-3-90 | | | |
| Released By | | | | |
| Operational Health Physics | Released By Operational Hearth Physics | | | |
| Remarks | Remarks MW-14-15 | | | |
| | Remarks / 100 / T | | | |
| 54-3000-022 (09/88) | | | | |
| And the second s | 54-3000-022 (09/88 | | | |
| RADIATION RELEASE | | | | |
| NADIATION RELEASE | RADIATION RELEASE | | | |
| Bldg. WM - 14-10 Date 1-4-10 | 1 4 1 090 | | | |
| 1.00 | Bidg. 4/M-/4 Date | | | |
| Released ByOperational Hoofth Physics | Hora al | | | |
| Remarks | Operational Health Physics | | | |

54-3000-022 (09/88)

54-3000-022 (09/88)

TEST REQUEST FORM

| Sample/Specimen No. | 0-016 | Cost Code/Work Order No. ED332 |
|---------------------|-------------------|--|
| Requested By: Org. | 80 23 2_ | Person J. LIND BERG Date 1-23-90 |
| Test Requested | No. of Samples | Test Lab Information (Instruction Used) |
| SIEVE ANAWSIS | J | ETN-07 |
| Hydronieter | t | ETAL- 07 (IF RED) |
| ATTERBERG Limits | 1 | C1x1-18 |
| N/A | NIA | N/A |
| | • | |
| Remarks FIELD SAM | Puž | Received By: RG Alexander Date 1-9-90 Approved By: RG Alexander Date 1-23-90 |

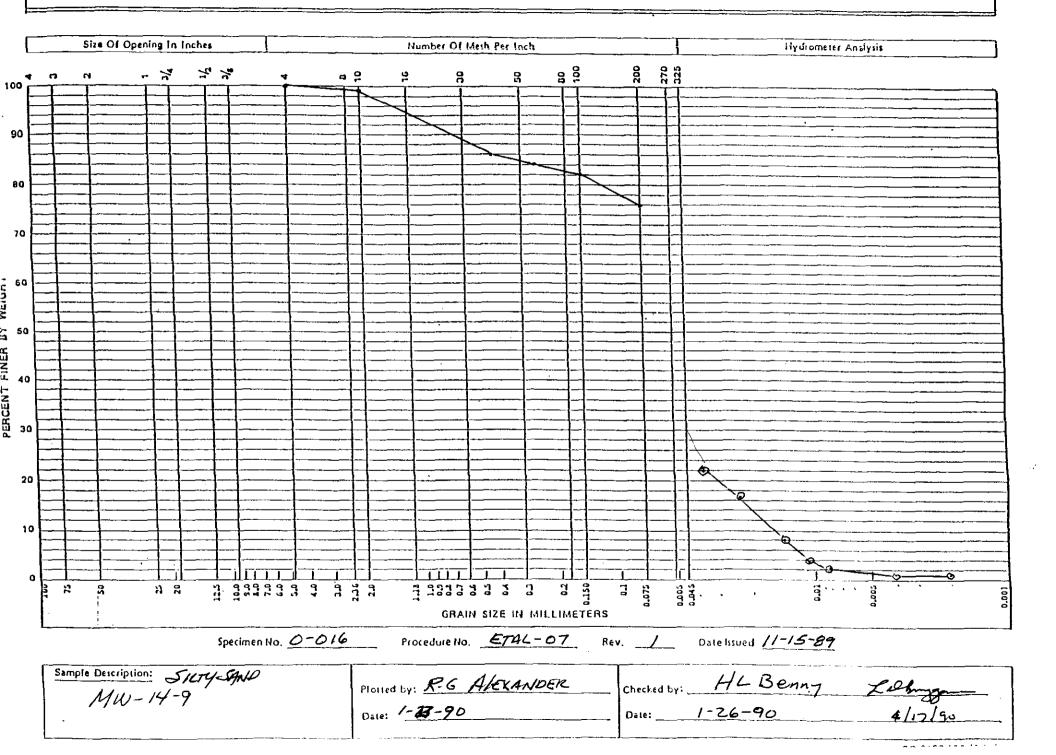
| | | | | SIEVE ANA | LYSIS DAT | | | |
|----------|---------------|---------------|---------------------------------------|-------------------------------------|-------------------------------|----------------------------|--------------------|--------|
| | | Samp | ole ID <u>O</u> | -016 | | Page/ | of <u>/</u> | |
| | | Te | ested By <u>F</u> | RG Alexan | IDER] | Date <u>1-23-9</u> | 10 | |
| | | P | rocedure_ | ETAL-07 Re | <u> </u> | Date Issued_ | 11-15-89 | |
| | | | Balance Thermome | <u> </u> | 3304 0006 N/A | 3-25 2-6 N// | -90 | |
| S | amp] | | | SMTY SAND | | | | min) |
| | | (=) | · · · · · · · · · · · · · · · · · · · | splitting | /A\ | | | |
| | BEF | ORE | EST WT. | /A AFTER TE | ST WT. NA | $\frac{B-A}{B}X \ 100 = .$ | <u>~/</u> ♣ % Loss | 3 |
| i . | ve ID nber | Sleve Slze | | Cumulative Wt Retained (g) | % Retained | Cumulative 7 | Cumulative : | % Pass |
| N/ | A | | 1 | | | | | |
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| | | | | | | | 4 | 4 |
| | | #14 | 4 | | 4 | Y | 100 | 100 |
| | | 410 | 102.45 | 0.70 | 0.7 | 0.7 | 99.3 | 99.5 |
| | | #40 | | 14.44 | 14.1 | 14.1 | 85.9 | 85.9 |
| | | # 60 | | 16.54 | 16.1 | 16.1 | 83.9 | 83.9 |
| | | 4100 | | 18.32 | 17.8 | 17.8 | 82.2 | 82.2 |
| Y | | #Z00 | 1 | 24.27 | 23.6 | 23.4 | 76.4 | 76.4 |
| | | Finess | Modules (FM | () N/A | (See ASTM C 1 | 36-83, Section | 8.2) | |
| | | | | NO. 200 SIE | | IING Remar | lea | |
| i | | | Material Pas Veight of San | ssing a 200 Siev | 76 <u>76.4 7.</u> 102.65 m | | GRADING | |
| | _ | _ | _ | r Washing/Sleve | _ | SAME | LFIELD | |
| | ., | | <(D-E)/D> X | | <u> </u> | SAM | <u>'Œ</u> | |
| | OF | ERAT | | URATELY ANI AINED AND U Benny | | ATED INSTRU | | |

A-5400-204(2-57)

| | | | HYDROMETER A | NALYSIS DATA SHEET | | | |
|----------|---------------|--------------------------|---------------------------------------|--|-------------------|------------------------|------------------------------|
| Sample | ID | -016 | | Pag | e/_ of/ | | |
| | | Tested By | 6. ALEXANDER | 2 Date | -90 | | |
| | | Procedure <u>ETAC</u> | -07 Rev / I | Date Issued | | | |
| | | EQUIPN | IENT ITEM | | IBRATION |] | |
| | | 1 | | | 1-16-91 | | |
| | | Balance | | 8304 4 | -25-90 | | |
| | | Thermomete | r/Thermocouple | 0002 2 | -5-91 | | |
| Specifi | ic gravity o | f Sample2 | 2,30 | LIVEROSCORIC | MOSTURE | CNITCHE | |
| % Passi | ing No. 10 | Sieve | 00(%) | HYGROSCOPIC | | | |
| Hygros | copic Corre | ection Factor | 4/4 | Wt. Container + Air D | | | - |
| | | | | Wt. Container + Oven | | | • |
| | Ā | VEIGHT OF SAM | PLE | Wt. Container93 | , 52 | (0 | 3) #78 |
| Wt. Co | ntainer + 1 | Śoil | <u>~/~</u> (g) | Water Content | 2.69 | (9 | %) |
| Wt. Co | ntainer | | <u>~/^ (g)</u> | D | ENAA DVC | | |
| Wt. Soi | iľ | · | 86,61 (g) | <u> </u> | <u>EMARKS</u> | | |
| | | ADOCUTE CORDE | CT:01: | TUBE B | | | <u> </u> |
| | | MPOSITE CORRE | · · · · · · · · · · · · · · · · · · · | w= 86.61 | · | | |
| | | | °c | W 2 0 V. WI | | | ~ |
| 2nd R€ | eading | at | °c | | ····· | | |
| | | | | | | | |
| | · | | | Assume a=1.11 | K = 0.0 | 1447 | |
| Date | Clock time | Elapsed time (min) | Hydrometer reading | Hydrometer with composite correction | Temp. (°C) | Soil in suspension (%) | Particle diameter (mm) |
| 4-16 | 0825 | 2.0 | 22 | 17 | 24.6 | 21.8 | 038 |
| 4-16 | 0828 | 5.0 | 18 | /3 | 26.6 | 16.7 | . 024 |
| 4-16 | 0838 | 15.0 | // | 4 | 25.8 | 7.7 | , 015 |
| 4-16 | 0853 | 30.0 | 8 | 3 | 2 <u>5</u> . 8 | 3.8 | .011 |
| 4-16 | 0923 | 60.0 | 7 | 2 | 26.1 | 2.4 | .008 |
| 4-16 | 1235 | 250.00 | 6 | 1 | 26.0 | 1. 3 | . 004 |
| 4-17 | 0823 | 1,440.0 | U | | 21.7 | 1.3 | 500. |
| Formulas | and Tables u | sed to calculate per | cent Soil in suspension, p | article diameter and hygroscopic co | rrection factor a | are found in AST | |
| | TRAINED | ND UTILIZED CALIB | RATED TEST INSTRUMEN | ELY RECORDED. THE TEST OPERAT TS AS INDICATED ABOVE. APPROV | OR WAS APPRO | PRIATELY DURES WERE | |
| | Checked By | TO PRODUCE THE | Ing gener | Date 4/17/90 | | | |
| | | | 0.6 | | | | , |

9212 11 746

GRAIN SIZE ANALYSIS PLOT



SOIL MOISTURE DATA SHEET

PROCEDURE NO. <u>E74C-14</u> REV. NO. <u>9</u>

THERMOMETER NO. 2006 CALIBRATION DUE DATE 2-6-90

| SAMPLE NO. | WET WT. + CAN | DRY WT. + CAN | CAN WT. | WET WT. SOIL | DRY WT. SOIL | % WATER |
|---------------------------------------|---------------|---------------|----------|--------------|--------------|---------------------------------------|
| 0-016 | 552.66 | 417,98 | 120.56 | 432.10 | 291.42 | 45.28 |
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ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: R.G. ALEXANDER DATE 1-23-90

| | PLASTIC INDEX SOILS DATA SHEET | | | | | | | | | |
|---------------------|--------------------------------|------------------------|---|---------------------------------------|---------------------|-----|--|--|--|--|
| | | Sample No. <u>O-01</u> | | | 1 of 2 | | | | | |
| | • | Test Operator <u></u> | Benny 2007 Co | _ Date _ | 4/9/90 | | | | | |
| | | Thermometer No6 | <u>000 7</u> co | alibration Date | 8/16/90 | | | | | |
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| | 8. 7- | | | | | | | | | |
| | 6. | | | | | | | | | |
| 0 <u>≥</u> | 5- | | | | | | | | | |
| MBEF | 4 - 1 | | | | | | | | | |
| NUMBER OF DROPS (N) | 3. | | | | | | | | | |
| , B | 2 | | | | | | | | | |
| ops. | | | | | | | | | | |
| · 2 | | | | | | | | | | |
| | 1 | | | | | | | | | |
| . | | | WATER CONT | ENT (Wn) | | | | | | |
| - | انا | quid Limit (LL) | Graph | Plastic Limit | (PL) <u>NA</u> (Ave | g.) | | | | |
| J | انا | quid Limit (LL) | One Point | Moisture (PL) <u>NA</u> % <u>NA</u> % | | | | | | |
| • | М | oisture (LL) | _% | Plastic Index | (PI)* <u>NA</u> | | | | | |
| | | | *PI = LL - | PL | _ | | | | | |
| | | Remarks <i>Nor</i> | -plastic (Vo | Icanic As | h) | | | | | |
| | | | ACCURATELY AND COM | | | | | | | |
| | | THE TEST OPER | PATOR WAS APPROPIATE | ELY TRAINED AND |) ULITIZED | | | | | |
| | | | ST INSTRUMENTS. API PRODUCE THIS DATA. | PROVED TEST PR | ROCEDURES WERE | | | | | |
| | | | | | | | | | | |

Sample is not cohesive Liquid limit can't be performed

SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL -018 REV. NO. DETAL -018 REV. NO. DETAL -018 CALIBRATION DUE DATE 8/16/90

Blows

| SAMPLE NO. | WET WT. + CAN | DRY WT. + CAN | CAN WT. | WET WT. SOIL | DRY WT. SOIL | % WATER |
|------------|---------------|---------------|---------|--------------|--------------|--|
| 0-016-1 | 23.26 | 19.06 | 11.27 | 11.99 | 7.19 | 53.92 |
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JULY ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: HCBenny

DATE 4/10/90

| Westingh | ouse |
|----------|---------------------|
| Hanford | Company |
| | Westingh Hanford |

CHAIN OF CUSTODY

| Company Contact: JWLindberg | | Telephone 6 | -5005 |
|------------------------------------|----------------|-----------------------|------------------------|
| Sample Collected by: RandMiller | (Golder) | Date: Jan 2-4, 190 | 10 Time: NA |
| Sample Locations: Temporary lie | l Number Mu |)-14: | |
| Ice Chest No.: NA | | | WHC-N-306-3 Page 33-34 |
| Remarks: | | | : |
| | | | |
| Bill of Lading No.: <u>NA</u> | Off | Site Property No.: NA | |
| Method of Shipment: Hand Carr | Ц | , | |
| Shipped to: <u>Jerry Alexander</u> | (WHC) 210 | 1-m physical tes | sting laboratory |
| MW-14-3 | Sample Identif | ication ' | ر. ر |
| MW-14-4 above 7 | | | |
| MW-14-5 below 8 | | | |
| MW-14-6 | | | |
| MW-14-7 | | | |
| | | | , |
| MW-14-9 | | | |
| MW-14-10 | | | |
| MW-14-11 | | | |
| | | | |
| | | | |
| CHAIN OF POSSESSION | | | |
| Rel ing uished by: | Received by: | > P = 00 | Date/Time: |
| fand it mill (GAI) | Julindberg } | Voluntiers | 1/6/90 1015 |
| Relinquished by: | Received by: |) | Date/Time: |
| Julindberg the findheren | R.G HIE | XANDER | 1-19/90-1450 |
| Relinquished by: | Received by: | injune. | Date/Time: |
| Relinquished by: | Received by: | | Date/Time: |
| | | | FVR\071889-B |

SAMPLING ANALYSIS REQUEST

| Part I: Field Section | | |
|--|--|---------------------------------------|
| Collector RandMiller | Date Sampled Jan 4, 1990 Time | NA hours |
| Affiliation of Sampler Gold | er | · · · · · · · · · · · · · · · · · · · |
| Address <u>NA</u> number stree | | |
| number stree | city state | zip |
| Telephone <u>(309) 374-5005</u> | Company Contact _ JWLindberg (Fin | eld Team Lead |
| LABORATORY | | |
| SAMPLE COLLECTOR'S NUMBER SAMPLE NO. | TYPE OF SAMPLE* FIELD INFORMAT | ION** |
| MW-4-9 | Soil Stainless Steel Lin | |
| MW14-10 | 5011 11 11 11 | |
| MW-K4-11 | | |
| <u>/////////////////////////////////////</u> | 0011 | |
| · · · · · · · · · · · · · · · · · · · | | // |
| Analysis Requested <u>MW-14-9</u> | and MW-14-10 Particle size analyse 11 Permeability (after Klute & Di | is and |
| atterlera Limits MW-14 | 11 Permastrilta (alter Klato & Di | here) |
| | 7 | |
| | | |
| Special Handling and/or Stora | e <u>NA</u> | |
| | | |
| PART II: LABORATORY SECTION* | | · ' |
| Received by | TitleDate | |
| | | |
| Analysis Required | | |

Figure 9-19. Example of hazardous waste sample analysis sheet.

NINE - 70

Revision 0 Date <u>September 1986</u>

| RADIATION RELEASE | RADIATION RELEASE |
|--|--|
| Bidg. How Rapods Date 12-29-89 | Bldg. 4 31, Rapiple Date 12-29-89 |
| Released By Operational Health Physics | Released By |
| | Released By Operational Health Physics Remarks |
| 14W-14-1 | Remarks |
| | 54-3000-022 (09/88) |
| 54-3000-022 (09/88) | 34-3000-022 (03/86 |
| | |
| RADIATION RELEASE | RADIATION RELEASE |
| 81dg. MW-13-90 Date 1-2-90 | 81dg. MW-13- 4 gate 1-2-90 |
| M Corela 2 | Released By Walland |
| Operational Health Physics | Operational Health Physics |
| Remarks NW-14-3 | Remarks |
| Sample. | - 1 Sample |
| 54-3000-022 (09/88) | 54-3000-022 (09/88 |
| | |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. MW-13-5 Date 1-3-98 | Bldg. MW-X-11 9 Date 1-3-90 |
| Released By | |
| Operational Health Physics | Released By Operational Health Physics |
| Remarks | Remarks MW-14-15 |
| | |
| 54.3000-022 (09/88) | 54-3000-022 (09/88) |
| PARIATION RELEACE | |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. WM - 14-7 Date 1-4-90 | 1 1 1 1 1 99 |
| Released By | Bidg M-/4 Date |
| Operational Health Physics | Rejeased By Operational Health Physics |
| Remarks | Remarks |
| | Kemany |
| RADIATION RELEASE | RADIATION RELEASE |
| Bidg. MW-14 Date 1/4/89 | 1/4/85 |
| Released By | Bldg. Date Date |
| Operational Hearin Physics | Released By Operational Health Physics |
| Remarks O | Remarks MW - 14 -10 0 |
| MW-14-9 | |
| RADIATIO | ON RELEASE 54-3000-022 (09/88) |
| nu MW-(4 | nu /4/25 |
| blog. | 2 7 |
| Released ByOpera | tional Health Physics |
| Remarks | V |
| MW-14-11 | |
| | E 4 2000 022 (00 ma) |

54-3000-022 (09/88)

TEST REQUEST FORM

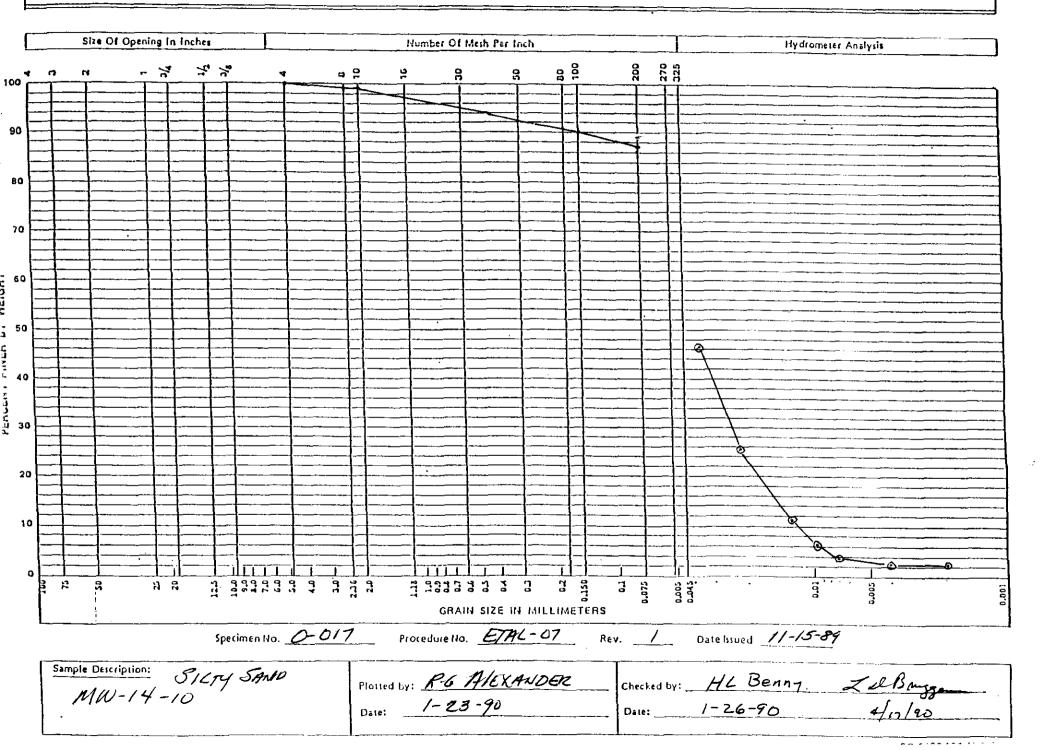
| Sample/Specimen No. <u>6-0</u> | 17 Cost Code/Work Order No. ED 332 |
|---|--|
| Requested By: Org. 80 Z | 32 Person <u>J. LINO BERG</u> Date 1-23-90 |
| Test Requested Samp Sieve Anlawsis Hydrometer ATTERBORG LIMITS | Test Lab Information (Instruction Used) ETAL-07 ETAL-07 (IF REP.) ETAL-18 N/H |
| Remarks FIELD SAMPLE MW-14-10 | Received By: R.6 Alexander Date 1-990 Approved By: R.6 Alexander Date 1-23-90 |

| <u> </u> | | | | | | | | | YSI | S DAT | | | | | | |
|----------|---|------|-------------|--------|-------------|-------------|---------|------------|--------------------|----------|--------------|-------------------------|-------------|-------------|------|-----|
| | | Sa | mpl | e ID_ | 0 | 01 | 7 | | | | Page | | of _ | | | |
| | Tested By R. & Alexander Date 1-23-90 | | | | | | | | | | | | | | | |
| | | | Pro | ocedi | ıre_ | ET4C | -0- | 7_ Re | <u>v/</u> | 1 | Date I | ssued <u>/</u> | 1-15-8 | 9 | | |
| | | | | Balar | sce_ | ENT I | | | 33 | TION N | | DATE I 3-25- 2-6- | 90 | | | |
| | Thermometer 0006 2-6-90 N/A N/A N/A | | | | | | | | | | | | | | | |
| So | ımpl | le I | Desc | ripti | on_ | Sicr | 4 5 | AND | | | Si | ieve Tir | ne_/ | <u>о</u> (1 | min) |) |
| | | red | luced | bу | X | splitti | ng | | ⊒ qu | artering | : [| stockp | ile | | | |
| | BEF | OR | (B) E TE | ST W | т. <u>М</u> | <u>/A</u> A | LFT! | ER TE | (A) STW | TN/A | X A-E | 100 = 4 | 4/4 % | LOSS | | |
| | eve ID Sieve Sample Cumula ımber Size Weight Retaine | | | | | % Re | etained | l | ilative % ained | | lative % Pas | | Pass | | | |
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| | | # | Ŧ | 116. | 97 | | Ø | | 0.4 | | Ø | | 100 | | 100 | |
| | | # | 10 | | | C | .6 | 7 | | | 0- | 6 | 99.4 | | 99 | 7.4 |
| | | # (| 40 | | | 7 | 7.2 | 3 | 4. | 2. | 4. | z | 93.8 | | 93 | 8 |
| | | # (| øD. | | | 9 | -66 | • | 8. | 3 | 8. | 3 | 91.7 | | 91. | 7_ |
| | | #1 | 00 | | | 11 | . 75 | 5 | 10. | 0 | 10. | 0 | 90 | ۵, | 90. | .0 |
| <u> </u> | | #2 | 00 | Ţ | | 15 | 5.0 | 0 | 12. | 8 | 12. | P | 87 | ·. Z | 87 | .2. |
| | | Fin | oss y | fodula | e (FN | () | N/B | <u>'</u> (| See A | STM C 1 | 36-83, | Section | 3.2) | | | |
| | | | | | | | | | | Y WASE | | n · | | | | |
| | | | | | | | a 20 | 00 Siev | | | = | Remarl WASH | cs 1 401 | 40/46 | | |
| | _ | | • | ight o | | - | hi- | · /01c= | 16.9 | ~ | - | SMALL | FIEL | P | | |
| E∓Dr | y me | | | (D-E) | | | បាយ | g/Sieve | 15.00 | -6 | - | 2AN/ | | | | |
| | ΑL | | | | | | rel | Y AND | COM | PLETE | LY RE | CORDEL | THI | E TES | T | |
| | OF | ER | ATO | R WAS | S TR | AINE | D A | | | | | NSTRU | MENTS | 3 | | |
| | Checked By HCBenny Date 1-26-90 | | | | | | | | | | | | | | | |

A-6400-204(2-57)

| | | | HYDROMETER AN | IALYSIS DATA SHEET | · | · · · · · · · · · · · · · · · · · · · | |
|----------|---------------|---|-------------------------|---|-------------------|---------------------------------------|------------------------------|
| Sample I | DO | -017 | | Page | of | <u>/</u> | |
| | | Tested By R.G | ALEXANDER | Date 4-/4 | -90 | | |
| | | | | ate Issued //-15-89 | | | |
| | | EQUIPN | MENTITEM | NO. DU | BRATION E DATE | | |
| | | Hydrometer | | 1000 2 | | | |
| | | Balance | | 3304 6 0002 2 | -25.90 -9-91 | } | |
| | | Inermomete | r/Thermocouple | | | | |
| Specifi | c gravity c | of Sample | 2,30 | HYGROSCOPIC | MACISTUDE C | ONTENT | |
| % Passi | ng No. 10 | Sieve | <i>100</i> (%) | | | | |
| Hygros | copic Corr | ection Factor | N/A | Wt. Container + Air Do Wt. Container + Oven | - | | |
| | · <u>v</u> | VEIGHT OF SAM | PLE | Wt. Container9 | 3.78 | (g |) 4/6 |
| Wt. Cor | ntainer + | Śoil | N/♣ (g) | Water Content | 11.44 | (% | 6) |
| Wt. Co | ntainer | | ~/ <u>~</u> (g) | | | | |
| Wt. Soi | | • • | 88.28 (g) | <u>RI</u> | EMARKS | | |
| | | | \" | TUBE D | ··· | | |
| | COM | MPOSITE CORRE | CTION | | | | |
| 1st Rea | ding | at | <i>_25.7</i> _°c | W=88.28 | | | |
| 2nd Re | ading | at | °c | | | | |
| | | | | | | | |
| | | • | | Assume a = 1.11 | K=0.0 | 7441 | |
| Date | Clock time | Elapsed time (min) | Hydrometer reading | Hydrometer with composite correction | Temp. (*C) | Soil in suspension (%) | Particle diameter (mm) |
| 4-16 | 0837 | 2.0 | 42 | 37 | 26.5 | 46.5 | . 033 |
| 4-16 | 0840 | 5.0 | 2.5 | 20 | 26.3 | 25.2 | .023 |
| 4-16 | 0850 | 15.0 | 14 | 9 | 26.3 | 11.3 | .014 |
| 4-16 | 0905 | 30.0 | 10 | 5 | 26.0 | 4.3 | ,010 |
| 4-16 | 0935 | 60.0 | 8 | 3 | 25.8 | 3.8 | .007 |
| 4-16 | 1245 | 250 00 | 7 | 2 | 25.6 | 2.5 | .004 |
| 417 | 0835 | 1,440.0 | 7 | 2 | 21.5 | 2.5 | ,002 |
| | | used to calculate pe | <u> </u> | rticle diameter and hygroscopic co | | | |
| | NI SECTI | IDED DATA 400 - 55 | THRATELY AND COLUMN STE | I V DECORDED. THE TEST OFFICE | 00 4/46 4 5555 | DDIATELY | l |
| | TRAINED | IRED DATA ARE ACC AND UTILIZED CALIE D TO PRODUCE THE | RATED TEST INSTRUMENTS | LY RECORDED. THE TEST OPERAT S AS INDICATED ABOVE, APPROVI | ED TEST PROCE | DURES WERE | |
| | Checked B | 10 E | Muggaman | Date 4/17/90 | | | |
| l | | | -01 | | | | , |

GRAIN SIZE ANALYSIS PLOT



SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-14 REV. NO. OCCUPATION DUE DATE 2-6-90

| | . | | , | | | |
|------------|---------------|---------------|----------|--------------|--------------|---------|
| SAMPLE NO. | WET WT. + CAN | DRY WT. + CAN | CAN WT. | WET WT. SOIL | DRY WT. SOIL | % WATER |
| 0-017 | 496.89 | 380.34 | 12310 | 373.79 | 257.24 | 45.31 |
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ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR:

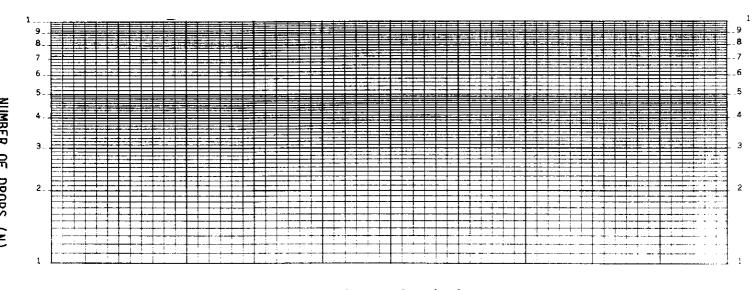
RG ALEXANDER DATE 1-23-90

PLASTIC INDEX SOILS DATA SHEET

Sample No. 0 - 017

Page ___ l __of ____

Test Operator HLBenny Date $\frac{4/10/90}{16/90}$ Thermometer No. $\frac{9007}{16/90}$ Calibration Date $\frac{8/16/90}{16}$



WATER CONTENT (Wn)

Liquid Limit (LL) __*NA*_ Graph

Plastic Limit (PL) <u>NA</u> (Avg.)

Liquid Limit (LL) NA One Point Moisture (PL) NA 7 NA 7

Moisture (LL) NA %

Plastic Index (PI)* NA

*Pl = LL - PL Remarks Non-plastic (Volcanic Ash)

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. LIBS 4/1/10 THE TEST OPERATOR WAS APPROPIATELY TRAINED AND ULITIZED CALIBRATED TEST INSTRUMENTS. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THIS DATA.

Sample is not cohesive. Liquid limit can't be performed.

SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-018 REV. NO.

THERMOMETER NO. <u>0007</u> CALIBRATION DUE DATE <u>8/16/90</u>

| Blows | SAMPLE NO. | WET WT. + CAN | DRY WT. + CAN | CAN WT. | WET WT. SOIL | DRY WT. SOIL | % WATER |
|-------|-------------|--|-----------------|-----------|--------------|----------------|--------------|
| 10 | 0-017-1 | 29.21 | 25.95 | 19.75 | 9.46 | 6.20 | 52.58 |
| | | | | | | | |
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| | Ca Alve | 20 | | | | | |
| • | JOALL REQUI | QU IRED DATA ARE AC PRIATELY TRAINED | CURATELY AND CO | MPLETELY | RECORDED. TH | IE TEST OPERAT | OR C DATA |
| | TEST OPERA | | | SOURES FU | DATE | | E DATA |
| į | | 17UBe | nny | | DATE | 4/9/20 | |

| (W) | Westingh Hanford | ouse Company |
|------------|---------------------|-----------------|
|------------|---------------------|-----------------|

CHAIN OF CUSTODY

| Company Contact: JWLindberg | | Telephone 6 | -5005 |
|---------------------------------|---------------|---------------------------|----------------------------|
| Sample Collected by: RandMiller | (Golder) | Dote: Jan 2-4, 190 | 10 Time: NA |
| Sample Locations: Temporary Wel | Number 1 | nw-14 | |
| Ice Chest No.: NA | | | WHC-N-306-3 Page 33-31 |
| Remarks: | | | : |
| | | | |
| Bill of Lading No.: NA | | Off Site Property No.: NA | |
| Method of Shipment: Lland Carri | L | | |
| Shipped to: Jerry Alexander | (WHC): | 2101-m physical tes | sting laboratory |
| MW-14-3 | Sample Ide | ntification | ., |
| MW-14-4 above 7 | | | |
| MW-14-5 below P | | | |
| <u>MW-14-6</u> MW-14-7 | | | ` |
| MW-14-8 | | | |
| MW-14-9 | | | |
| MW-14-10 | | | |
| MW-14-11 | | | |
| | | | |
| | | | |
| CHAIN OF POSSESSION | | | |
| Relinquished by: | Received by: | 11-P2 NO | Date/Time: |
| fand it Mill (GAI) | Jest indberry | Juling learn | 1/6/90 1015 |
| Relinquished by: | Received by: | EXAMPER | Date/Time: 1/9/90 -/450 |
| Relinquished by: | Received by: | Restofano | Date/Time: |
| Relinquished by: | Received by: | | Date/Time: |
| | | | FVR\071889-B |

SAMPLING ANALYSIS REQUEST

| Part I: | Field | Section | n | | | | | ,. | | |
|--------------------------------|--------------|------------------|---------------|-----------------------|---------------------------------------|----------|-----------|----------------|---------------------------------------|------------|
| Collector | Rand | Mille | <u>r</u> | Date | : Sample | d Jan 4 | /990 T | ine N | 4_ hour | 2 |
| Affiliati | on of | Sample | - Gold | er | | | | · | | _ |
| Address _ | | | 4500.05 | · ine | | | | | | - |
| . Tellenhone | num (Xn4) | 97. – | Street | Company C | ontact | -14 1 | موطور | ate (E) 111 | Z1 | p ممام |
| | | 2 (9 | <u> </u> | company | oncace | | This Cit | Plear | Car LCD | |
| LABORATOR' SAMPLE NUMBER | | COLLEC SAMPLE | TOR'S | TYPE OF SAMPLE* | | FI | ELD INF | ORMATION* | ** | - _ |
| | - | MW- | -4-9 | 5011 | _ 5 | tainless | Steel | Liner | (4" di | · @) |
| | - | MWY | 4-10 | Soil | | 11 | 11 | 11 | 7 | _ |
| 4 | | MW | 4-11 | 5011 | | μ | D | 11 | 1/ | _ |
| | _ | | | | | | | | // | _ |
| Analysis R | - leguest | ted M4 | 1-14-9 | and MW-1 | 4-10 | Particle | Also a | nalinia | and | - |
| atterberg : | Limits | i M | (1)-14- | and MW-1 11 Permoa | 1-0-1 | Celter | KO. 4 | e Kila |) | •• |
| - | | , | | | | 7 | nunce | · Julion | 7 | - |
| Special Ha | ndline | and/o | r Storag | - <i>I</i> // | • | | | | · · · · · · · · · · · · · · · · · · · | - |
| Special na | | , and, o | . Storay | - <u>A/A</u> | | | · | | | - |
| | | | · | | · · · · · · · · · · · · · · · · · · · | | | <u> </u> | | - Å |
| PART II: | LABORA | TORY S | ECTION** | | | | | : | | : |
| Received b | у | | | | Title | | | Date | | • |
| Analysis R | | | | | - | | | | | • |
| | · | | | | | | | | | |
| * Indicate | wheth | er samp | le is so | oil, sludge | , etc. | James | 4. | • | | |
| USC DACK | oi pa | ge ioi | add (C (O) | nal informa | tion re | lative | co samp | ie locat | ion. | |
| | | - | | • | | | | | | |
| Figu | ure 9- | 19. Ex | ample of | f hazardous | waste | samole: | analvsi | s sheet. | | |
| _ | | | • | | | | | | | |

NINE - 70

Revision 0 Date <u>September 1986</u>

| RADIATION RELEASE | RADIATION RELEASE |
|--|--|
| Bldg. How Rapods Date 12-29-89 | Bldg. Late Rapide Date 12-29-89 |
| Released By Operational Health Physics | Released By |
| * • | Released By Operational Health Physics |
| Remarks | Remarks |
| | MU 13-2 |
| 54-3000-022 (09/88) | 54-3000-022 (09/88) |
| | DADIATION DELEACE |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. MW-72-90 | Bidg. MW-13- 5 pate 1-2-90 |
| Released By MI Caseland | Released By Waseland |
| Operational Health Physics | Operational Health Physics |
| Remarks 1NW-14-3 | Remarks |
| / Saugle: | - 1 Sample |
| 54-3000-022 (09/88) | 54-3000-022 (09/88) |
| | |
| RADIATION RELEASE | RADIATION RELEASE |
| Bldg. MW-13-5 Date 1-3-98 | 1/6 . MY . / |
| | 8idg. MW-X- 1 Date 1-3-90 |
| Released By Operational Health Physics | Released By |
| Remarks | Remarks MW-14-15 |
| | Remarks 1.100 / 1 |
| 54-3000-022 (09/88) | 54-3000-022 (09/88) |
| <u>L</u> | 1 34 3000-022 (03/88) |
| RADIATION RELEASE | E TION DELEASE |
| Bldg. WM-14-7 Date 1-4-90 | RADIATION RELEASE |
| | Bidg. WM-14-8 Date 1-49 |
| Operational Hoofth Physics | And a |
| Remarks | Rejeased By Operational Health Physics |
| | Remarks |
| ************ | |
| RADIATION RELEASE | RADIATION RELEASE / / |
| Bldg. MW-14 Date 1/4/89 | |
| Released By | Bldg. MW - 14 Date 1/4/8) |
| Operational Hearth Physics | Released By Operational Health Physics |
| Remarks | Remarks MW - 14 -10 |
| MW-14-9 | Remarks NW 7 |
| RADIATIO | ON RELEASE 54-3000-022 (09/88) |
| Bldg MW-14 | 1/- |
| Bldg. Flw-17 | Date 1/4/8) |
| Released By | 3 2' |
| | itional Health Physics |
| Remarks | |
| <u>///W-14 11</u> | 54.3000.022 (09/88) |

0

54-3000-022 (09/88)

TEST REQUEST FORM

| Sample/Specimen No. | 0-018 | Cost Code/Work Order No. ED 382 |
|------------------------------|-------------------|---|
| Requested By: Org. | 80232 | Person J. LINDBERG Date 1-23-90 |
| Test Requested | No. of Samples | Test Lab Information (Instruction Used) |
| Hypeanic Consuming | | <u>ETAL-09</u> |
| NIA | N/A | N/A |
| N/A | NA | <u>~//4</u> |
| <i>N/A</i> | NA | N/d |
| | • | |
| Remarks FIELD SA MW 14-11 | MPLE | Received By: R.6 Alexander Date 1-9-96 |
| | | Approved By: RG Alexanose Date 1-23-9 |

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By #4 Benn Date 2/2/90

Total

100 %

SAMPLE PREPARATION

Determine Weight of Samples in Container

| Container No. | 48 |
|---------------------------------|--------|
| Wt. of Sample + Container, g | 496.89 |
| Wt. of Container, g | 123.10 |
| Wt. of Sample, g | 313.19 |

Determine the Water Content of the "Air Dry" Sample

| Container No. | 48 |
|-------------------------------------|--------|
| Wt. Container & Wet Soil (A), g | 496.89 |
| Wt. Container & Dry Soil (B), g | 380.34 |
| Wt. of Water, g | 116.55 |
| Wt. of Container (C), g | 123.10 |
| Wt. of Dry Soil, W _s , g | 257.24 |
| Water Content (W), % | 45.31 |

$$W = (\frac{A \cdot B}{B \cdot C}) 100$$

| SAMPLE COMPONENT | SPECIFIC GRAVITY, G | LABORATORY NOTEBOOK DATA LOCATION | | |
|------------------|---------------------|-----------------------------------|--|--|
| N/A· | N/A | | | |
| N/A | N/A | N/A | | |
| N/A | N/A | N/A | | |

| ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY |
|--|
| TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA. |

Checked By <u>HCBenny</u>

Date 2/2/90

Static A/A Tamping A/A

| STATIC Load Applied, g/ Layer | 1 | N/A | 11 | NA |
|--|-----|-------------|-------------------|----|
| or | 2 | | 12 | |
| TAMPING No. Tamps per Layer/ | 3 | | 13 | |
| Layer Length, cm | 4 | | 14 | |
| | 5 | | 15 | |
| | 6 | | 16 | |
| 1 / | _] | | - '• | |
| Total No. of Layers N/A INTACT SAMPLE FROM SPLIT TURE 14 STEEL LINER | 7 | | 17 | |
| INTACT SAMPLE FROM SPLIT | 8 | | 18 | |
| TUBE IN STEEL WALK | 9 | | 19 | |
| | 10 | 4 | 20 | ₩ |
| Tamper Foot Diameter cm | | N/A | | |
| Tamper Applied Load, g | | N/A |] | |
| Sample Diameter, (d), cm | | 9.80 | | |
| Sample Length, (L), cm |] | 15.22 | | |
| Sample Mold or Permeameter Weight & Compacted Sample, g | | 2503.19 | · | |
| Sample Mold or Permeameter Weight, g | | 594.50 | 2 | |
| Weight of Compacted Sample, (E), g | | 1909.29 | • | |
| Weight of Container & Uncompacted Wet Sample, (A), g | | 496.89 | | |
| Weight of Container & Uncompacted Dry Sample, (8), g | | 380.34 | | |
| Weight of Water, g | | 114.55 | | |
| Weight of Container, (C), g | | 123.10 |) | |
| Weight of Dry Soil, (WS), g | | 257.24 | | |
| Water Content, % | | 45-31 | | |
| Compacted Bulk Density of Sample, (γm) , g/cc | | 1.66 | | |
| Compacted Sample Dry Density, (γd), g/cc | | 1.15 | | |
| | | | | |

$$\gamma_{\text{m}} = \frac{\epsilon}{(\pi) (d/2)^{2}(L)}$$

$$\gamma_{\text{d}} = \left(\frac{\gamma_{\text{m}}}{W + 100}\right) 100$$

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By HL Benny

HYDRAULIC CONDUCTIVITY DATA SHEET

Sample ID. 0-018

Page 4 of 5

12-1-89 Red 1-21-90

Procedure No. ETAL-09

Date Issued H-15-89

| DATE | E TIME | | | VOLUME DETERMINANTS | | | | | | | |
|---------------------|-----------------------------|---------------------------|-----------------------------|----------------------|-------------------------------|--------------|--------|----------------|----------------------|-----------------------|----------------------|
| Year 90 (Mo/Day) | System Down (Hr: Min) | System Up (Hr: Min) | Time Change (Hr: Min) | Effl Temp (°C) | uent Weight (±0.1g) | Cont Tare | | System Temp | Pore H20 (pei) Gy | Back H ₂ O | Operator Initials |
| 1-23 | | 11:45 | | | | 150.46 | | | 191.0 | N/n | REN |
| /.a3 | 1415 | STOP | 2:30 | 22 | 49605 | 150.46 | 446.51 | 22 | 191.0 | NIA | RGA |
| 1-24 | | 0800 | | _ | _ | 150.46 | | | 191.0 | NA | R64 |
| 1-24 | 1045 | 1050 | 2:45 R | 44°22 | 535.94 | 150~16 | 686.40 | 22 | 191.0 | NIA | RGA. |
| 1.24 | 1350 | 1355 | 3:00 | 22 | 545,17 | 150,46 | 695.63 | 22 | 191.0 | NIA | REA |
| 1-24 | 1625 | STOP | 2;30 | 22 | 473.60 | 150.46 | 624.06 | 22 | 191.0 | NIA | ROA |
| 1-25 | _ | 6710 | <u> </u> | | | 150.46 | | | 191.0 | NIA | RIA |
| 1-25 | 6940 | Stop | 2130 | 2(| 481.00 | 150.46 | 631.46 | 21 | 191.0 | NIA | REA |
| 1-29 | _ | 0805 | | _ | | 150.46 | | _ | 191.6 | NIA | REA |
| 1-29 | 10:05 | 10:10 | 2:00 | 22 | 385.63 | 150.46 | 536.09 | 22 | 191.0 | N/A | REA |
| 1-29 | 13:10 | 13135 | 31.04 | aa | 560.21 | 150.46 | 710.67 | 22 | 191.0 | N/A | Rub |
| 1-29 | 15:35 | STOP | 2:00 | 22 | 384.84 | 150.46 | 585.30 | 22 | 191.0 | NIA | REA |
| 1-30 | _ | 12:50 | | _ | | 150.46 | | | 191.0 | N/A | Ron |
| 1-30 | 15:30 | STUP | 2:40 | 22 | 486.72 | 150.46 | 637.18 | 22 | 191.0 | NIA | REA |
| 1-31 | _ | 0810 | | _ | | 150.46 | _ | | 191.0 | N/A | RGA |
| 1-31 | 10 to | 1015 | 2:00 | 21 | 354.78 | 150.46 | 507.24 | Z1 | 191.0 | NIA | Roh |
| 1-31 | 1315 | 1320 | 3:00 | 22 | 543.66 | 150.46 | 694.12 | 22 | 191.0 | N/A | RGA |
| 1-31 | 1520 | STOP | 7:00 | 22 | 377.14 | 150.46 | 527.60 | 22 | 191.0 | NIA | RGA |
| | | Sto | TE | ST | | | | - | | | |
| | | | | | | | | | | | |
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| | | and the second second | | | | | | | | | |
| | | | | | | | | | | | |

| ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TI | EST OPERATOR WAS |
|---|------------------|
| APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS | INDICATED ABOVE. |
| APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATE | TA. |

Checked By HL Benny Date 2/2/90

HYDRAULIC CONDUCTIVITY DATA SHEET

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Page 5 of 5

Date Issued 41-15-8-9 12-1-89

Row 1-31-90

| Date o > | Hydraulic | Hydraulic | Effluent | Analysis | Effluent | Operator |
|---------------------------------------|--------------------------|---|-----------------|---------------------------|-------------|----------|
| Oate 90 Year (Mo/Day) | Conductivity (cm/sec) | Gradient (cm/cm) | (Sample Number) | Lab. Notebook Location | Description | Initials |
| /- <i>23</i> | START | TEST | | | | RGA |
| 1-23 | 5.82 x/5 5 | 12.55 | | | CLEAR | REA |
| 1-24 | START | 1551 | | | CLEAR | RGA |
| - 24 | 5.772 × 10-5 | /2,55 | | | CLEAR | REA |
| 1-24 | 5,33 × 10-5 | 12.55 | | | CLEAR | RHA |
| 1-24 | 5.56 y 10-5 | 12.55 | | | CLEAR | REA |
| 1-25 | START | TEST | | _ | | RGA |
| 1 - 2.2 | 5.69 × 10-5 | 12.55 | | | CLEAR | RGA |
| 1-29 | STARL | ारड ा | | | | REA |
| 1-29 | 5.70 ×10-5 | 12.55 | _ | | CUTAR | Rea |
| 1-29 | 5.48 × 10-5 | 12.55 | _ | - | CHELR | REA |
| 1-29 | 5.45 X 10-5 | 12.58 | <u>-</u> | | CLEAR | Res |
| 1-30 | START | 7637 | | _ | CLERR | RUA |
| 1-30 | 5.34 ×10-5 | 12.55 | | | CLEAR | RGA |
| 1-31 | START | ास्ट र | | _ | CLEAR | REA |
| 1-31 | 5.24 ×10-5 | 12, 55 | | | CLEAR | RGA |
| 1-31 | 5.32 x 10 5 | 17.55 | | | CLERE | R6A |
| 1-31 | 5.53 x10-5 | 12.55 | _ | _ | CLEAR | RLA |
| Stup | TEST | 5.4 ± 0. | Z X 10-5 CH | 1/SEC | | |
| | | | | | | |
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| | | *************************************** | | | | |
| - | | | | | | |

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By HLBenny Date 2/2/90

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Westinghouse Hanford Company

CHAIN OF CUSTODY

| Company Contact: JWLindberg | | Telephone 6-5005 | | | |
|--------------------------------------|---------------------------------------|------------------------------------|--|--|--|
| Sample Collected by: RandMille | r (Golder) Dat | e: Jan 2-4, 1990 Time: NA | | | |
| Sample Locations: Temporary We | | | | | |
| · | | ook & Page No. WHC-N-306-3 Page 39 | | | |
| Remarks: | | , - | | | |
| Bill of Lading No.: NA | Off Site P | roperty No.: <u>NA</u> | | | |
| Method of Shipment: Hand Cary | rų | | | | |
| | 1 h | physical testing laboratory | | | |
| U | Sample Identification | | | | |
| MW-14-3 MW-14-4 above 7 | | | | | |
| MW-14-5 below P | | | | | |
| MW-14-6 | | | | | |
| Mu)-14-7 | | | | | |
| MW-14 - 8 | | | | | |
| MW-14-9 | · · · · · · · · · · · · · · · · · · · | | | | |
| MW-14-10 | | | | | |
| MW-14-11 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| CHAIN OF POSSESSION | | | | | |
| Rel ing uished by: | Received by: | Date/Time: | | | |
| ford it Mill (GAI) | Julindberg JU | influera 1/6/90 1015 | | | |
| Relinquished by: Julindberg Hendlerg | Received by: R.G. HIEXAND | Date/Time: 1/9/90 -/41 | | | |
| Relinquished by: | Received by: | Date/Time: | | | |
| Relinquished by: | Received by: | Date/Time: | | | |
| | | FVR\07188 | | | |

SAMPLING ANALYSIS REQUEST

| Part I: Field Section | | | | | | |
|--|--|--|--|--|--|--|
| Collector RandMiller Da | te Sampled Jan 4,1990 Time NA hours | | | | | |
| Affiliation of Sampler Golder | | | | | | |
| Address <u>NA</u> number street : | | | | | | |
| | | | | | | |
| Telephone (309) 374-5005 Company | Contact _ JWLindberg (Field Team Leader | | | | | |
| LABORATORY SAMPLE COLLECTOR'S TYPE OF NUMBER SAMPLE NO. SAMPLE | | | | | | |
| MW-14-9 Soi | | | | | | |
| MW14-10 5011 | | | | | | |
| MW-14-11 Soil | 11 11 11 | | | | | |
| | <i>II</i> | | | | | |
| Analysis Requested MW-14-9 and MW- | -14-10 Particle sine anglipies and | | | | | |
| atterberg Limits, MW-14-11 Perm | eability (after Klute & Dirkesen) | | | | | |
| | The state of the s | | | | | |
| Special Handling and/or Storage <u>NA</u> | | | | | | |
| | | | | | | |
| PART II: LABORATORY SECTION** | | | | | | |
| Received by | Title Date | | | | | |
| Analysis Required | | | | | | |
| Indicate whether sample is soil, sludge, etc. **Use back of page for additional information relative to sample location. | | | | | | |

Figure 9-19. Example of hazardous waste sample analysis sheet.

NINE - 70

Revision 0
Date September 1986

| RADIATION RELEASE | RADIATION RELEASE |
|--|--|
| Blog. How Rapods Date 12-29-89 | Bldg. Hora Rapiple Date 12-29-89 |
| Released By Operational Health Physics | |
| Operational Health Physics | Released By Operational Health Physics |
| Remarks | Remarks |
| | MU 13-2 |
| 54-3000-022 (09/88) | 54-3000-022 (09/88) |
| | RADIATION RELEASE |
| RADIATION RELEASE | 14-4 |
| Bldg. MW-75- Date 1-2-90 | Bidg. 110-13-49 gate 1-2-10 |
| Released By Market | Released By Calland Operational Health Physics |
| Operational Health Physics | Remarks |
| Remarks 1100 | 1 Sample |
| 54-3000-022 (09/88) | 54-3000-022 (09/88 |
| 1" | |
| RADIATION RELEASE | DADIATION DELEGA |
| Bldg. MW-13-5 Date 1-3-98 | RADIATION RELEASE |
| Bldg. Market State | Bldg. MW-X- 1 9 Date 1-3-90 |
| Released By Operational Health Physics | Released By |
| Remarks | Operational Health Physics |
| | Remarks MW-14-B |
| 54-3000-022 (09/88) | 54 2000 022 //200 |
| | 54-3000-022 (09/88) |
| RADIATION RELEASE | E |
| Bldg. WM-14-7 Date 1-4-90 | RADIATION RELEASE |
| Released By | side <u>VM-14-8</u> Date 1-490 |
| Operational Hospith Physics | man al |
| Remarks | Operational Federi Physics |
| | Remarks |
| RADIATION RELEASE | |
| 1/20 | RADIATION RELEASE |
| Bldg. MW-14 Date 1/4/89 | Bldg. MW - 14 Date |
| Released By Operational Health Physics | |
| Remarks | Operational Health Physics |
| NW-14-9 | Remarks MW - 14 -10 |
| DADIATIO | 027 (00/09) |
| _ | / / |
| Bldg. MW-14 | Date |
| Released By | 3 2' |
| · | tional Hearth Physics |
| Remarks | |
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54-3000-022 (09/88)